ALTERNATIVES
IN 2020

preqin

Contents

CEO's Foreword

Alternatives AUM exceeds $10tn milestone amid challenging market conditions

Mark O'Hare
CEO, Preqin

The alternatives industry has just set a new record: global assets under management (AUM) have surged to **$10.31tn**. We're now well on our way to meeting Preqin's 2018 forecast of $14tn in AUM by 2023[1]. How did we get here, and where are we headed?

I'll start with a look back. In my foreword to last year's report, I observed that financial markets were at a watershed moment, with high asset valuations, economic and political uncertainty, and a challenging period for investment returns ahead. Fast-forward to today and the same can be said, but even more so: global markets have continued their upward path, and the outlook is certainly challenging.

There are at least two immediate lessons for us all as investors, fund managers, and analysts. First, it's futile trying to time the market – miss the last six months of a typical bull market and you forego on average a 20% return. Second, it's wiser to invest in a robust way that caters for uncertainty and the challenging returns environment that may lie ahead.

Investors Keep Faith with Alternatives

That is precisely what major institutional investors around the world did in 2019. Their plans for 2020 and beyond are to stick with the program. Why? Alternative assets have delivered good relative performance in both bull and bear markets. Recognizing this, investors are continuing to put their faith in alternative assets.

The result is steadily rising allocations, helping the industry to smash that $10tn record. What's more, the universe of active investors in alternatives continues to expand. In January 2019, Preqin Pro tracked a total of 11,280 institutions with active alternative asset investment programs. As of January 2020, that number has risen to around **12,000**[2].

Is the faith of investing institutions in alternative assets justified? We believe so. All the historical evidence of returns through good times and bad shows this, and we've documented the performance figures in our six **2020 Preqin Global Alternatives Reports** – these are our in-depth annual reviews of each asset class, spanning private equity & venture capital, private debt, hedge funds, real estate, infrastructure, and natural resources.

Fund Managers Continue to Adapt and Evolve

But what of the future? If the alternative assets industry is to continue delivering for investors, then it will need to continue to **adapt and evolve** in response to market challenges and opportunities. It's precisely here that the strengths of the alternatives industry are

[1] *Preqin: The Future of Alternatives, 2018, https://go.preqin.com/future*

[2] *This figure represents the total number of investors that have an allocation to alternatives or that are considering investing over the next 12 months.*

greatest: there is a remarkable ability and propensity to adapt and evolve to capture opportunities and mitigate risk. Here are some examples:

- Private Equity & Venture Capital: Fund managers are tapping into new disruptive sectors such as healthtech (read our **2020 Preqin Global Private Equity & Venture Capital Report** for a special feature on healthtech).
- Hedge Funds: More fund managers are deploying artificial intelligence & machine learning (AIML) technologies to stay ahead of the competition (see our **2020 Preqin Global Hedge Fund Report** for a special feature on AIML).
- Private Debt: To attract large investors, fund managers are increasingly creating alternative structures which enable more co-investing and separate accounts (see Chapter 5 in our **2020 Preqin Global Private Debt Report** for more on alternative structures).
- Real Estate: Fund managers are spotting promising opportunities in emerging niches such as PropTech (see our **2020 Preqin Global Real Estate Report** for a special feature on PropTech).
- Infrastructure: Fund managers are moving into higher-risk sectors such as value added or opportunistic as competition intensifies (see Chapter 11 in our **2020 Preqin Global Infrastructure Report** for our analysis of how fund managers are adapting to stiff competition).
- Natural Resources: In a tough fundraising environment, fund managers are finding new opportunities in sectors such as renewables (see our **2020 Preqin Global Natural Resources Report** for a special feature on the shift toward renewables).

For institutional investors, fund managers, and advisors alike, a key ingredient in pursuing selective, robust, and adaptive investment strategies is good information. Preqin is honored to support our customers and the industry with the best possible information. We aim to assist you in finding and selecting the best investment opportunities and in connecting you with the best business partners. As you have come to expect from Preqin, we are investing heavily to develop and improve our services to you and the industry: we opened new offices in Chicago and Tokyo in 2019, with Sydney, Dubai, and Frankfurt to follow in 2020; we have launched our new ESG module; and we are making major investments in technology to support our data operations and products. We're with you on the journey.

Thank you.

1.
Private Equity

For our full annual review of the private equity & venture capital industry, please visit www.preqin.com/gper

Private Equity Key Facts

$4.11tn

Global private equity assets under management as of June 2019.

$595bn

Total capital raised by funds closed in 2019, a 5% decrease from the record $628bn secured in both 2017 and 2018.

3,524

Number of funds in market (a record figure) as of January 2020, collectively targeting $926bn.

5,102

Number of private equity-backed buyout deals completed in 2019, worth an aggregate $389bn. A decrease from 6,481 and $493bn in 2018.

17.0%

Median annualized net return in the three years to June 2019.

86%

Proportion of investors that intend to commit as much or more capital to the asset class in 2020 as they did in 2019.

Private Equity in 2019

Private equity AUM hits a record $4.11tn, but market conditions are challenging

Capital flows into global private equity[1] were robust in 2019. As the world economy faltered – GDP growth slid to 2.3%, the lowest since the Global Financial Crisis (GFC)[2] – and interest rates remained low, investors on the hunt for yield continued to flock to private equity funds, committing more than $0.5tn and boosting fund managers' stockpile of dry powder. This growth in available capital, along with an 11% increase in unrealized value, boosted assets under management (AUM) to a record $4.11tn as of June 2019.

However, market conditions are becoming more difficult. For a start, the influx of investable capital and intensifying competition have helped to drive up asset prices. Just over half (51%) of fund managers and over two-thirds of investors (69%) feel that private equity portfolio company prices are higher compared with 12 months ago. And 44% of fund managers experienced more competition for private equity transactions. All this has had a dampening effect on deal flow. Between 2018 and 2019, the value of all private equity-backed buyout deals fell 21% to $389bn, while venture capital deal value declined by 18%, from $271bn to $223bn.

A tougher environment for the industry does not appear to be deterring investors, however. Indeed, 86% of LPs told us that they intend to allocate as much or more capital to the asset class in 2020 as they did in 2019. Why is that? One reason is that most investors are satisfied with how their private equity portfolios are performing. In fact, 87% of LPs surveyed by Preqin said that returns in 2019 had either met or exceeded their expectations. And LPs with access to the best private equity funds are benefiting from higher and higher returns. For example, top performing funds of vintages 2015 and 2016 are delivering net IRRs of 23.0% and 25.9% respectively.

The outperformance of top-quartile funds has helped to attract more investors into the industry. Over 8,400 institutions across the globe now invest in private equity, up from 6,170 in 2015, ranging from small private wealth managers to massive sovereign wealth funds. As the investor universe has expanded, so has the number of fund managers: there are more than 18,000 currently offering a private equity product, up from 16,400 in 2018.

The number of private equity vehicles is also increasing. As of January 2020, there are 3,524 funds in market, a new record. For GPs raising their first fund, the market is especially challenging. Established players with a strong track record and global scale are securing vast amounts of capital. In 2019, the 20 largest funds captured over a third (39%) of all committed capital. That is quite a change from five years ago, when 29% of committed capital went to the 20 largest funds.

We conclude this year's report with five predictions. They reflect not just the exciting opportunities ahead, but also the challenges for the industry. Fund managers have record amounts of capital to put to work – 58% expect to invest more in 2020 than they did in 2019. But investing is especially challenging when prices are high and competition stiff. Market conditions could get tougher still: 62% of fund managers (as well as 61% of investors) believe that we are currently at the peak of the cycle. If the cycle turns and managers are faced with a recession, the task of maintaining the kinds of returns that investors have come to expect from the asset class becomes even more difficult. This will test the mettle of the best performers. Investors will be watching closely to determine which firms are able to flourish in bad times as well as good.

[1] *Unless otherwise stated, in this report 'Private Equity' includes Venture Capital.*
[2] *https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-2020/*

Private Equity Megatrends

Key themes shaping the private equity industry

Capital Consolidation

The largest funds closed in 2019 swept up vast amounts of capital: 39% of all capital raised went to the 20 largest funds.

Expected Correction

Forty-five percent of fund managers expect a correction in 2020, and three-quarters believe a shift in investor focus from public markets to private investment will impact private equity.

ESG Investing

Nearly two-thirds of investors report that ESG will become more integral to alternative assets as LPs continue to prioritize ESG investing. In response, more fund managers now hold ESG policies.

Digital Innovation

Disruptive technologies, such as artificial intelligence, are helping fund managers to improve operational efficiencies while creating new opportunities for investment.

Rising Valuations

A growing amount of available capital and intensifying competition are driving private equity valuations ever higher. Fund managers expect valuations to present a key challenge to return generation in 2020.

Three Mega Trends Driving China's New Economy

Changes in consumption, technological innovation, and advanced manufacturing are creating exciting opportunities for private equity

How has the slowdown in technology investment and softer GDP growth affected China's 'New Economy' of fast-growing technology industries?
China's economy has entered a 'new normal.' As of June 2019, the number of mobile internet users in China hit 847 million, an increase of only 0.5% compared to the end of 2018. But private equity investors continue to invest in innovation-driven enterprises, with a focus on productivity improvement and synergy. Despite the slowdown of overall GDP in China, the revenue of internet giants such as Tencent and Alibaba continues to grow at a rate of more than 20%. The New Economy now accounts for about 16% of China's GDP, with 2018 output growth of 12.2% year on year, outpacing GDP growth in current prices by 2.5 percentage points.

What key trends do you see driving attractive risk/return opportunities?
The first trend is the change in consumption patterns, which can be summarized as the **Five New**.

1. **New Consumers:** Generation Z cares about attitude, not just basic functionality; they are looking for high-quality, stylish goods at fair prices. Meanwhile, the 'silver economy' is creating investment opportunities in health, leisure, and tourism that caters to older generations.

2. **New Media:** China has 430 million daily active viewers of short videos. Each viewer spends 60-70 minutes per day on platforms such as Douyin, known outside China as TikTok. Integrating Douyin with online shopping site Taobao creates a powerful e-commerce ecosystem that's reinforced via influencers, whose video posts generate buzz and drive even more traffic.

Fan Bao
Founder, Chairman, and CEO, China Renaissance Group

3. **New Channels:** The cost of user acquisition through online channels has increased significantly in the past two years. But new channels, such as offline shopping malls in lower-tier markets, offer a more competitive user acquisition cost.

4. **New Brands:** China has many export-oriented original equipment manufacturer (OEM) companies. As a result of the US-China trade war, many OEMs are actively looking to establish their own brands. And on the demand side, as Chinese GDP per capita approaches $10,000, consumption upgrades are more accessible to the general population. An example of a New Brand is NOME, whose products span lifestyle goods, products for the home, and food.

5. **New Infrastructure:** The on-demand food delivery industry has created a very well-developed delivery network across Chinese cities – even better than that of traditional courier services. Same-city delivery now only takes 30 minutes. This is creating opportunities for other types of delivery

businesses – not just food, but medicine, for example. As long as these networks are located in the same city as the inventory, any type of good can be delivered locally, and fast.

The second trend to mention is the **industrial internet**. As labor becomes more expensive, non-digital companies are beginning to conduct more business online and are embarking on digital transformation journeys. And new technologies – like artificial intelligence (AI), big data, and cloud services – are helping businesses to improve efficiencies in the flow of information, production, and transaction, thereby lowering their costs. This process is still at an early stage, but it has lots of potential as consumer internet companies, such as Tencent, invest heavily in the sector.

The third trend is **technological innovation & advanced manufacturing**. The ongoing trade war is forcing Chinese companies to develop in-house technology, which creates investment opportunities in high-end manufacturing, 5G, AI, and chips. 5G, for instance, enables capabilities like wireless control and communication for equipment, advanced logistics tracking, low latency industrial AI, and sensitive augmented reality (AR) and mixed reality (MR) cloud applications.

The number of players in China's private equity industry is growing. What advice do you have for LPs looking to select the best GPs?
We believe that to be successful in this industry, you need three key strengths:

1. **Visibility and insight into the most promising deals**
   This requires a strong pipeline of advisory services, an extensive network within the entrepreneur and investor community, dedicated and full coverage of new economy sectors, first-hand market intelligence, and an in-depth understanding of the latest industry trends.

2. **Ability to invest in exclusive opportunities**
   Entrepreneurs and start-ups must see you as a valuable investor and strategic advisor, capable of bringing long-term value and advice. That's how you generate transactions that are exclusive or offered to only a very limited number of private equity firms.

3. **Ability to provide comprehensive solutions**
   Having a platform of financial services is attractive to both limited partners and portfolio companies. Whether their business needs involve financings, industry consolidation, strategic investment, divestitures, or going public, they want seamless support.

Huaxing Growth Capital started in 2013 as the investment management arm of an established financial institution, China Renaissance. How did Huaxing come about?
Huaxing primarily focuses on the formation, management, and investment of private equity funds, and is a natural extension of our advisory services. It allows us to participate in our clients' value creation, by leveraging our platform and network strengths to bring significant value to both portfolio companies and limited partners.

About China Renaissance Group

China Renaissance Group (CR Group) is a leading financial institution that combines private placement advisory, M&A advisory, direct investment, equity underwriting, sales, trading and brokerage, research, structured products, asset management, wealth management, and other financial services. Providing one-stop financial services across mainland China, Hong Kong, and the US, CR Group operates a competitive and unique international network that connects China's capital markets with the rest of the world, serving new economy entrepreneurs and investors globally.

Fan Bao is the Founder, Chairman, and CEO of China Renaissance Group, China's leading financial institution serving the New Economy, which he founded in 2005. Fan was Chief Strategy Officer of AsiaInfo after spending seven years in investment banking, at Morgan Stanley and Credit Suisse. Fan is a guest lecturer at PBC School of Finance at Tsinghua University, and a postdoctoral supervisor at the Shenzhen Stock Exchange.

How Technology Is Changing Manager Operations

With digital platforms of harmonized data, fund managers can perform risk analysis at the click of a button – and that's just for starters

Dr. Dimitris Matalliotakis
Head of Information Systems, AssetMetrix

How has the adoption of technology within private equity (PE) evolved?
Despite the technology sector being a crucial area of PE investment, PE has traditionally been quite a low-tech industry. There are many reasons for this. PE organizations such as pure asset managers are home to smaller teams, which lack technology teams to support them. The amount of data being managed in the PE industry is more 'small data' than 'big data,' especially compared to the liquid assets industry. PE has therefore historically utilized low-tech products such as Excel to manage data.

There are, of course, exceptions. Several players in the market have relational databases in place, and advanced managers have even developed proprietary applications that go well beyond data management in Excel or relational databases. Others have chosen to license applications from software vendors in the industry. So there is quite a range in terms of technology adoption across PE.

What is driving managers to adopt technology?
The adoption of technology in PE has been driven by three factors. First, the success and growth of the PE industry have led to more and larger funds being managed by asset managers. As a result, they are dealing with more clients, service providers, and data, all of which is difficult to manage in a low-tech environment. As more data is gathered and processed and a higher number of reports need to be delivered, the pressure to adopt modern technologies rises.

Secondly, the adoption of technology has been driven by client demand, especially among regulated investors such as pension funds, insurance companies, and other institutional investors. The big players are under stronger regulatory regimes, requiring a wide range of reports and analysis to fulfill their regulatory obligations. Fund managers have been put under increasing pressure to adopt reporting technology to satisfy investor demands.

Finally, the overall advancement of technology obviously plays a major role as well. The spread of digitization has quickly outdated many processes within PE. The exchanging of PDF reports over email now looks archaic when compared to other industries with fully digitized processes and seamless flows of data.

What solutions are investors and fund managers looking for?
What we're seeing the most demand for now is the base level of technology adoption: a solution that allows fund managers to efficiently and reliably process data in a highly automated manner, producing any firm-specific KPIs, consolidations, or aggregations required. We're also seeing strong demand in the digital universe. This revolves around real-time reporting channels, digital workflows, and digitizing the exchanging of data and documents based on web and mobile technologies.

The next step in adoption is data-driven insights. Creating harmonized and streamlined data on digital platforms allows you to perform analysis that goes well beyond aggregations of historical data. Fund managers will be able to look into the future with forecast models and risk analysis delivered on a platform. Such models can provide, for example, value-at-risk analysis that is compliant with regulatory requirements in a similar way to how this is done for liquid assets – at the click of a button.

How do fund managers approach becoming more technologically advanced?

Many PE organizations are simply not big enough and don't have the in-house competencies to successfully adopt sophisticated technology. It's not as if all fund managers have the resources of an investment bank or insurance company to help with technology implementation.

Specialized providers that both understand PE and possess the technological skills are therefore becoming increasingly important in the market. Fund managers are looking for firms that are able to combine knowledge of the requirements of fund managers and private funds with an understanding of how advanced technological offerings can provide value.

Specialized providers reduce the time taken to adopt new technologies; organizations don't have to invest money today and wait two, three, or five years before harvesting the outcome of these systems. Providers also have scale effects and efficiencies that isolated PE organizations may not be able to reproduce.

What's next for PE and the future of technology in the industry?

We will see progression in machine learning and artificial intelligence (AI) in the coming years; fund managers will increasingly see the benefits that these systems can provide in processing both structured and unstructured data. We're now seeing cloud technologies conquering financial markets. Previously we saw that issues surrounding data residency and confidentiality slowed this adoption, but this is now changing as the industry's perception of cloud technologies becomes increasingly positive.

Also, robotic automation in PE processes is becoming more popular. Advances in this space will combine everything that we see on the machine learning and AI front to deliver a next level of efficiency in automation.

Then you have blockchain and distributed ledgers. These are interesting technologies that might find an application in PE, in particular by helping firms to manage all sorts of transactions more efficiently.

Looking ahead, we expect to see technology transform PE at an accelerated pace. The basis for this will be technology-assisted, harmonized data-exchanging that will permit the creation of what I call true "data supply chains." This involves the seamless integration of specialized, value-adding "component providers" in uninterrupted, readily available data flows, comparable to how supply chains work in manufacturing and elsewhere today. Industry-adopted standards in data exchange and machine learning will address the toughest challenge in this, which is data harmonization. Approaches for data ownership and confidentiality will also need to mature. Progress along these lines will allow novel digital business models to arise and enable digital market places for PE to materialize.

Beyond that, trends already visible today – predominantly in the liquid assets universe – will become more widely adopted in PE. These include data-driven investment decisions, potentially encompassing robotic investment offerings, self-optimizing quantitative models, and machine-reading from paper-like reports, all in addition to innovative cloud technologies that will make functionality more scalable, easy to adopt, and commodity like.

Private Equity: In Short

It's a shame that a few bad headlines mask the obvious good private equity does.

Alex Brooks
Partner,
Capstone Partners

Jennifer Choi
Managing Director, ILPA

ILPA believes that GPs should provide LPs with a framework for how co-investment opportunities, and any associated costs, will be allocated. GPs should provide LPs with more information around the use of subscription lines of credit including costs, unfunded amounts invested but not yet called, and levered and unlevered internal rate of return information.

Crypto is increasingly becoming the target of some of the best venture capital (VC) funds, and for good reason. Let's just take the example of crypto-finance. In recent months, we have seen a proliferation of investment from some of the top VCs into this sector.

George Salapa
Co-Founder, Bardicredit

Dr. Steffen Pauls
CEO, Moonfare

PE is a very important portfolio diversifier, due to the opportunities to benefit from operational value creation, market dislocations, and consistent returns.

At the moment, South African private equity is particularly appealing. The domestic investment cycle has lagged the global cycle. Instead of low interest rates and a recovering public equity market, South Africa has seen higher interest rates and underperforming equity markets.

John Seymour
CEO Private Equity, Sanlam

2.
Private Debt

For our full annual review of the private debt industry, please visit www.preqin.com/gpdr

Private Debt Key Facts

$812bn

Global AUM as of June 2019.

$104bn

Total capital raised by funds closed in 2019.

436

Number of funds in market as of January 2020, collectively targeting $192bn.

830

Number of deals completed in 2019, down from 1,387 in 2018.

4,155

Number of active investors in private debt.

84%

Proportion of investors that intend to commit as much, or more, capital to the asset class in 2020 compared to 2019.

Private Debt in 2019

Assets under management in private debt have once again hit a record, but the asset class has become more nuanced

Arguably the youngest asset class in the private capital universe, private debt has soared to incredible heights since the Global Financial Crisis (GFC). Assets under management (AUM) have grown consistently each year and, as of June 2019, reached a record $812bn. Private debt is now the third-largest asset class in private capital, ahead of infrastructure and natural resources.

The market has continuously expanded ever since the GFC, when banks retrenched from serving the middle market as they derisked their balance sheets. Private debt firms swooped in to capitalize on the void in the middle market. Over 4,100 investors now make allocations to the asset class. Demand has given rise to a record 1,764 fund managers now active in the space – up from 1,604 at the beginning of 2019 and over twice as many as five years ago – and a significant pool of capital available for them to put to use.

And put it to use they have. In tandem with growth in AUM, dry powder had been rising for the past five years; but in 2019, dry powder levels flattened somewhat, rising by only $4bn, from $292bn at the end of 2018 to $296bn as of June 2019, despite an 8% increase in overall AUM.

A total of 151 private debt funds closed to raise a combined $104bn, down from $110bn in 2018 through 210 fund closures, which in turn was down from the record $132bn secured through 220 fund closures in 2017. The 10 largest funds closed in 2019 raised 36% of total capital, an increase of seven percentage points in comparison to the previous year, highlighting the existence of capital consolidation as investors are increasingly drawn to larger, more established fund managers.

The uncertainty surrounding the current economic and credit cycle is undoubtedly a key consideration for many players in the private debt industry. In a low-yield environment, investors require fund managers with the capability and resources to adequately deal with distressed loans, and therefore may be drawn to more experienced managers with stronger track records in the event of a market downturn. Newer managers can still offer opportunity in these times, however; indeed, first-time fundraising made up 9% of total capital raised in private debt in 2019, up from 7% at the end of 2018.

Looking ahead, investors are upbeat about their private debt portfolios. A significant 91% of investors we spoke to will either maintain or increase their allocation to private debt over the longer term. That said, challenges lie in wait. While investors may be seeking downside protection, private debt has not been tested through a full market cycle. This is where managers will want to provide more transparency around investment decisions, to convince stakeholders of the value the asset class can deliver even if there are difficult times ahead.

Private Debt Megatrends

Key themes shaping the private debt industry

Competition for Deals

As AUM continues to rise, the challenge for managers is to find value in an increasingly competitive deal-making environment.

Capital Concentration

The larger fund managers are absorbing more industry capital as investors seek out established managers for downside protection.

Rise of Covenant-Lite

Covenants on loans have become looser as managers attempt to circumvent heightened competition in the market.

Market Slowdown

A market slowdown is widely believed to be on the horizon and stakeholders in the industry are preparing accordingly.

ESG

ESG is the hot topic in alternatives. We are seeing a structural shift in the attitudes of private debt investors toward ESG.

Selectivity Is Key in Private Debt

Churchill, the private capital affiliate of Nuveen, on the key opportunities in the private debt market and the importance of selectivity and diversification in portfolio development

In which areas are you seeing the most attractive opportunities in the private debt market?
We are focused on investing in directly originated senior secured loans to private equity-backed, traditional middle-market companies ($10-50mn of EBITDA), which we believe provide an attractive risk/return opportunity for investors. These assets can offer yields in the 7-8% range, along with reasonable leverage, solid loan-to-value, and financial covenants.

With record private equity capital fundraising and over $600bn in expected refinancing activity over the next several years, the opportunities for directly originated, middle-market senior secured loans are expected to remain attractive for larger investment platforms that can access the highest-quality investment opportunities. We also believe private equity is increasingly reliant on direct lending, as direct lending dry powder in North America is currently $70bn – just 16% of buyout dry powder.

Additionally, many investors believe a market correction is imminent, and the downside protection that senior middle-market loans can provide is often a key draw. Notably, historical performance data suggests that middle-market loans exhibit less risk, as measured by default and loss rates, than the closest comparable investment option, which are non-investment-grade, broadly syndicated loans.

In situations where business models are extremely resilient and cycle tested, we also believe middle-market junior capital can be an interesting risk-adjusted return opportunity, whereby we are able to access tranches of junior debt securities yielding 10-12%, but positioned under 50% of loan-to-value. These opportunities have been increasingly prevalent, as middle-market sponsors are driving up enterprise valuations for safer assets and accepting a lower base-case return on equity.

Ken Kencel
CEO and President, Churchill Asset Management, a Nuveen company

How have you positioned yourselves in the event of a market downturn?
While we don't know exactly when, there will be an economic downturn at some point, and we believe senior middle-market loans provide investors access to attractive yields from relatively conservative assets with inherent downside protection.

We believe that Churchill is particularly well positioned for a downturn. In the current environment, it is essential to remain highly selective (closing 5-10% of deals reviewed) and focused on building diversified portfolios of loans with 1-2% position sizes, conservative leverage multiples, significant sponsor equity contributions, and at least one financial covenant per transaction. We have also developed a strong position in the middle market as a trusted partner to lead traditional senior and unitranche credit facilities, which gives us an important seat at the table in case a credit issue arises throughout the life of an investment.

Lastly, we remain focused on defensive sectors, such as healthcare and technology, while avoiding lending to borrowers in industries reliant on commodities and heavy cyclicals. And, ultimately, it is essential to align ourselves with top-tier private equity sponsors with decades of successful experience investing in the same industries.

Is the increasing presence of covenant-lite loans creating more risk for investors?
In the current market, we have seen more aggressive structures typically found in the larger broadly syndicated loan market continue to creep into the upper middle market, such as covenant-lite loans. We believe this trend will continue, until there is some sort of credit event that gives lenders pause.

We view financial covenants as being critical structural elements of credit documentation in the middle market. Covenants are intended to act as guard rails that provide an impetus for all parties to sit around the table and review financial performance, allowing for thoughtful, constructive solutions early on, often before more serious issues arise.

In general, Churchill targets loans with at least one financial covenant and has also significantly reduced exposure to the upper middle market (companies with over $50mn in EBITDA) in response to the market dynamics described above. Our core focus remains on the traditional middle market, particularly in companies with $10-50mn in EBITDA, as we believe that protection from covenants (such as an ongoing debt-to-EBITDA maintenance test) will serve our portfolios well in every phase of the credit cycle.

What are the main differences between European private debt opportunities and those in the US? From which regions are you receiving the most investor interest?
The European direct lending market is less mature when compared to the US, as alternative lenders began to emerge in reaction to the Global Financial Crisis. The European direct lending market is essentially where the US was about 10 years ago.

Banks in Europe have been aggressive about defending their market share, particularly with relationship sponsors, so direct lenders are driven to offer more unitranche financings, as well as more lower-in-the-capital-stack solutions, which are fundamentally riskier.

The markets in the US and Europe are also very different in size – over the past 15 years the volume of institutional leveraged loans in the US has, on average, been more than 6x greater than that in Europe. The pool of direct lending opportunities is substantially smaller in Europe, particularly as managers focus on the deals the banks are not doing. As a result, given the amount of capital raised, the pace of deployment is much slower compared to that of US funds.

On the other hand, if the US middle market were a country, its GDP would rank it as the third-largest economy in the world – ahead of Japan, Germany, and the UK.[1] US direct lending managers with scaled origination platforms and strong track records can really enjoy the benefits of this much larger market, which allows them to be highly selective and hand pick the very best deals for their portfolios. In our view, this gives investors access to better market dynamics and more conservative assets. Churchill's investment portfolio, for instance, consists of 100% senior loans to a diversified pool of middle-market companies backed by top sponsors – all with at least one financial covenant. At this point in the cycle, the risk/return for our credit profile is very compelling.

In terms of investor interest, we are seeing that Asian investors, in particular from Japan, have increasingly begun to adopt private debt strategies.

[1] *The National Center for the Middle Market*

Nuveen

Nuveen, the investment management arm of TIAA, is one of the largest investment managers in the world with $1tn in assets under management. Managing a broad array of assets across diverse asset classes, geographies, and investment styles, we provide investors access to a wide range of liquid and illiquid alternative strategies.

Churchill Asset Management, our private capital investment affiliate, is a leading capital provider for private equity sponsor-owned middle-market companies. With $19bn of committed capital under management, Churchill has broad experience in all aspects of the middle-market financing business, including origination, structuring, credit analysis, syndication, and deal monitoring and oversight.

www.nuveen.com

Why Investors Should Focus on Outcomes, Not Definitions

Investors stand to benefit by broadening their understanding of private debt beyond direct or mid-market lending

Jo Waldron
Director of Fixed Income, M&G Investments

There is no clear definition for private debt shared among market participants, but it has become somewhat synonymous with corporate direct lending or mid-market lending, given the popularity of the investment strategy since the financial crisis. This narrow definition doesn't do justice to the breadth and diversity of the asset class, in our view, and the role(s) private debt can play in a portfolio. Investors may therefore be better off looking at private debt holistically and focusing on the investment outcomes it can deliver for them.

Institutional investors already allocating capital to the asset class have essentially gone looking for what they cannot find in public markets, whether that's stable, contractual income streams to help fund cash flows; higher risk-adjusted returns that can help to reduce funding gaps over time and additional yield in a world of negative rates; or the desire to diversify into new asset classes less correlated to traditional equity and fixed income markets. These benefits exist in addition to the structural credit protection and information advantage over the reporting norm of public markets that these opportunities invariably offer. More importantly, perhaps, investors have been prepared to forego some liquidity in exchange for this.

Can private debt continue its march higher and, more importantly, continue to deliver the outcomes investors expect? As private markets continue to add flexibility, depth, and sophistication, it's unsurprising that investors have built larger and more complex portfolios over time as they have become more confident about the long-term viability of the asset class. What's more, the opportunity set is ever-expanding, and investors have a greater range of debt strategies to choose from.

Creating Access for Private Capital

We advise people to invest flexibly, rather than focus too heavily on specific subsets, so that they can take advantage of newer investment opportunities that may arise as private debt and banking markets evolve. Non-standard, complex, and less explored areas, such as asset-based lending and trade receivables, tend to require a high degree of expertise and experience to navigate, but may be too small, too local, or lack the depth to attract dedicated pools of capital in their own right. Pipelines can be equally difficult to anticipate.

These types of opportunities are not ready-made and can, in some cases, take years of hard work to come to fruition. This can be a time-intensive approach, but we have found that investing early in growing markets has its advantages. Of course, as new money starts to crowd around certain deal types then it becomes a borrower's market and terms can become more challenging for investors. If you go back to 2009 when we made our first foray into direct lending, it was very hard to attract investors because it was very new, but there were huge opportunities out there. Now it's the other way around. Relationships and networks also matter. Much has been made of the competition between banks and non-bank lenders in the years following the crisis, but often non-bank lenders lend alongside banks. This points to collaboration rather than competition. In the area of consumer finance (or 'specialty finance' as we refer to it), because of the extensive commercial and legal due diligence needed to acquire loan assets from retail banks – which can include the likes of mortgages, auto loans, credit cards, student loans, and personal loans – we are looking to build symbiotic, long-term relationships with banks, which are selling these assets for regulatory capital reasons, such that the time, cost, and effort of the diligence is worth it for both parties.

We see the private credit markets continuing to evolve and take market share away from the banks, not least because policymakers and regulators are quite keen to see a far deeper and more structurally robust set of markets. Nothing is stopping banks and non-bank lenders from finding new, mutually beneficial ways to free up balance-sheet capacity in a capital-constrained world, either. The broader range of funding solutions available, often on more flexible terms and longer tenors than bank finance, has proved attractive to borrowers too. Increased demand from borrowers for alternative sources of funding has been a central tenet of the growth in private debt and will remain part of its ongoing development.

Living with Risk

The intensity of competition tends to vary, but some parts of the market are undoubtedly competitive given the influx of new entrants in recent years chasing a limited number of opportunities, making managers inherently more cautious and selective in their approach. Market observers point to the high levels of dry powder that have built up over recent years in areas like direct lending, creating concerns about spread compression and looser documentary protection for investors. These levels of uninvested cash only become challenging if the pressure to deploy capital quickly leads managers to go after investments they would have normally decided to pass on – deals that lack the transparency to fully evaluate the creditworthiness of the borrower or issuer and/or come with high execution risk.

Any decision to invest requires careful assessment of both benefits and risks. You have to look across the entire market to see what is available at any one time, what the demand is like, what the pricing is like, and whether the deal offers adequate compensation for the risk taken, or whether a more attractive way of accessing this risk is available in the public markets without assuming the illiquidity risk.

Lending Is Becoming More Broad-Based

Investing in private debt calls for a much broader opportunity set than ever before. We have found ourselves not only looking to avoid the popular, overly competed trades, but proactively exploring new and innovative ways to drive value for our clients, expanding further into private corporate credit and building our expertise and resources in other areas to position for the next iterations of market development. With specialty finance set to become quite an important market in Europe, non-corporate lending could be the next phase of market growth. The market for private loans backed by real assets – infrastructure loans and commercial real estate debt – is expected to expand further as debt funds become a growing source of capital for real assets project financing.

Investors should also keep an open mind and not wed themselves to a particular definition of private debt. As long as they are clear about why they are investing in private debt and the outcomes they are looking to achieve from the asset class, then definitions are much less important.

Private Debt: In Short

Providing growth capital to corporates active in sustainable commodity value chains is a niche strategy that is increasingly drawing interest from institutional investors. This is primarily thanks to attractive, uncorrelated returns, rather than solely because investors are concerned with ESG/impact investing.

Nabil Marc Abdul-Massih
CEO, INOKS Capital

There is a big opportunity in the SME market. The sheer number of smaller companies in Europe is vast, yet working with them is not straightforward.

Alex Schmid
Founding Partner & CEO, ESO Capital

China's economic transformation is creating new opportunities for investors in distressed debt. Non-Performing Loans (NPLs) – which can offer stable returns with downside protection – are increasing as Chinese companies grapple with an economic slowdown that has impacted their cash flows and reduced their ability to repay debt.

Xiaolin Zhang
Co-Founder and Managing Partner, Lakeshore Capital

Zheng Zhang
Co-Founder and Chairman, Lakeshore Capital

Hemant Daga
CEO, Edelweiss Global Asset Management

The private credit market in India is on the cusp of evolution. The credit markets are at the same stage as Indian equity markets were in the 1990s. Regulatory reforms and the emergence of new players as providers of credit are institutionalizing credit markets in the country, thus making it attractive for long-term offshore institutional investors.

As the sector continues to expand, private credit managers are set to continue to invest heavily in talent and technology in order to ensure that they can effectively scale their business, introduce greater efficiencies into the lending process and prepare for the late cycle environment.

Jiří Król
Deputy CEO & Global Head of Government Affairs, Alternative Investment Management Association

3.
Hedge Funds

For our full annual review of the hedge fund industry, please visit www.preqin.com/ghfr

Hedge Fund Key Facts

+11.45%

Annual net return for the Preqin All-Strategies Hedge Fund benchmark in 2019.

$82bn

Net outflows in 2019 as of November, the worst year for investor redemptions since 2016.

67% & 69%

Proportions of surveyed fund managers and investors respectively that believe we are at the top of the equity market cycle.

$3.61tn

Industry assets under management (as of November 2019); **44%** of surveyed managers believe AUM will increase further in 2020.

45%

Proportion of surveyed fund managers that believe conditions will improve for macro strategies in 2020, with **40%** expecting the same for relative value strategies, the largest proportions among top-level strategies.

30%

Emerging managers were responsible for nearly one-third of all hedge funds launched in 2019 amid increasing demand for first-time funds.

Hedge Funds in 2019

Market challenges spur greater innovation in the hedge fund industry

For hedge fund managers, 2019 marked the start of a much-needed recovery following 2018's weak performance. Capitalizing on strong equity market tailwinds, the asset class returned +11.45% over the year, bouncing back from the -3.06% return recorded the year before. As performance improved, assets under management (AUM) rose, increasing by 4.6% compared with the year before to hit $3.61tn as of November 2019. That is the highest point since Q3 2018 ($3.62tn).

Still, 40% of hedge fund investors we surveyed in November 2019 said that performance did not live up to expectations. 2019's improved performance is only the second time that industry returns have exceeded double digits in the past six years. For hedge fund managers, the pressure is on.

The Worst Year for Redemptions since 2016

There are some clear warning signs for the industry. For a start, investors withdrew a net $82bn from hedge funds in the year to November 2019, which marks the worst year for redemptions since $110bn was withdrawn in 2016. What's more, net outflows occurred in every major region.

Shifting investor sentiment also made the market more challenging for new launches. Just 529 hedge funds launched in 2019 – roughly half the number seen in 2018 (1,169) – marking the seventh consecutive year of decline. Liquidations outpaced new funds entering the market, shrinking the number of active funds in the industry to 16,256.

Fund Managers Evolve and Innovate

The silver lining? Today's market challenges are creating opportunities for fund managers to do what they do best: adapt, evolve, and innovate. Take fees, which have long been a bugbear for investors. Several funds that launched recently have eschewed the industry standard of a 2% management fee and a 20% performance fee in favor of more investor-friendly fee structures. For example, when Arizona-based Camkay Capital Management launched its Crisis Alpha Intraday CTA fund in 2019, the firm offered a 0% & 30% fee model with a high-water mark.

Fund managers are also increasingly applying artificial intelligence & machine learning (AIML) techniques to improve operational efficiencies and boost returns. After all, AIML funds have outperformed the wider hedge fund market and other systematically traded hedge funds on a three- and five-year annualized basis. Nearly a quarter (23%) of systematic hedge funds launched in 2019 use AIML, which is more than double the proportion that did so in 2016.

Investors Seek Defensive Strategies

Although market conditions have become more difficult, the hedge fund industry keeps growing. Investors are continuing to look to the asset class to diversify their portfolios and generate high, uncorrelated returns. Delivering risk-adjusted returns with low volatility is a key benefit of a hedge fund allocation that extends beyond headline returns, and using a risk-free rate of 2%, the Sharpe ratio of hedge funds has been steady around the 2.5 mark for four years.

Amid slowing global economic growth, and jitters that the market cycle could be at its peak, investors are looking to the industry in search of defensive strategies. Demand for relative value strategies, which are designed to produce returns regardless of market direction, spiked over 2019. And relative value strategies funds made up 14% of all launches last year, the largest share achieved in over five years.

Over the next 12 months, more than three-quarters (79%) of surveyed investors say that they plan to allocate the same amount of capital or more to hedge funds. If the market cycle does turn and conditions get even tougher, star managers will have a golden opportunity to demonstrate their value.

Hedge Fund Megatrends

Key themes shaping the hedge fund industry

Emerging Manager Demand

Investors are increasingly looking to smaller or newer funds[1] in search of outperformance or favorable fee terms.

Recovering Performance

The +11.45% return of the Preqin All-Strategies Hedge Fund benchmark marks only the second time in the past six years that the annual return has reached double digits.

Industry Consolidation

The number of hedge fund launches in 2019 trailed fund liquidations for the first time on record. The number of active vehicles is therefore shrinking, creating a consolidated and leaner industry.

Fee Pressure

Following pressure from investors, the mean management fee of funds launching in the market has been decreasing. Managers are altering their structures in a bid to attract capital in a competitive market.

Market Slowdown

Almost half (43%) of surveyed investors are looking to position their hedge fund portfolio more defensively in 2020 in response to our position in the cycle.

[1] *Opportunities Investing with Early Lifecycle Hedge Funds: A Preqin & 50 South Capital Study, https://www.preqin.com/insights/special-reports-and-factsheets/opportunities-investing-with-early-lifecycle-hedge-funds-a-preqin-50-south-capital-study/26521*

Our Evolving Industry

The Managed Funds Association (MFA) on keeping pace with the changing regulatory and market environments in the hedge fund industry

Jon Hitchon

Managing Director and COO, Two Sigma
Chair, Managed Funds Association Board of Directors

For years, Preqin's Global Hedge Fund Report has provided interesting and useful insight into our industry and its investors and this year's is no different. Over the past year, our industry has continued to grow. Assets under management are near an all-time high and 80% of institutional investors surveyed by Preqin reported that they plan to maintain or increase their allocations to hedge funds over the longer term. And MFA has grown alongside our industry – both staff and revenue have doubled in size. Part of this growth is to help members meet the demands we feel from our client base. Institutional investors are becoming more and more sophisticated.

That is why each year MFA brings together thousands of fund managers, service providers, prime brokers, and institutional investors in the industry's leading network – a network that is one of the most valuable aspects of our engagement with MFA. The peer-to-peer networking and legal, operational, and compliance training helps us reduce risk, manage costs, and attract assets.

MFA has also taken steps to keep pace with the changing regulatory and market environments by creating three new annual conferences in the past three years alone. At MFA's inaugural DATA conference in September 2019, speakers from Amazon, Apple, and Microsoft, as well as policymakers and fund managers, discussed the compliance challenges that accompany obtaining, securely storing, and utilizing data.

At that conference, MFA released a report, authored by McKinsey on our behalf, titled 'The Lifecycle of Data in Context: How Data Proliferation is Shaping Alternatives.' That paper found that more than 60% of MFA members surveyed believe alternative data will create the potential for additional alpha as data quality and the analytical techniques applied to it improve.

On the advocacy front, MFA worked to encourage regulators to simplify systemic risk reporting mandated by Dodd-Frank. We heard from our members that they were concerned about disclosing sensitive information and worked directly with lawmakers, the SEC, and the CFTC to change this approach.

That work is part of MFA's far-reaching, on-the-ground advocacy, which is driven by the issues we, as MFA members, identify as priorities. 2020 will be a busy year on Capitol Hill and at the regulatory agencies. We will be active participants in the process – whether it is working to improve the CFTC's swaps trading framework or contributing to the SEC's efforts to modernize the Advisers Act advertising rules.

MFA has also worked closely with regulators and policymakers in Europe in support of their goal of deepening capital markets by advocating for regulation that considers the unique nature of investment firms. Our primary concern is that the post-Brexit regulatory framework ensures our members have continued access to investors – and investors have access to our members' expertise. We have also made clear that any changes to longstanding portfolio delegation rules would threaten that access.

As MFA moves into the future, we are confident our reach and impact will continue to grow in partnership with and in service to our members.

Hedge Funds: In Short

There's enormous demand [from fund managers] for reporting capabilities [from their prime brokers]. We live in a technology-focused marketplace and embracing technology allows for better service.

Hedge fund managers need to be able to access reports online, on demand, and in real time. This allows them to manage risk, see trading blotters, and monitor their costs. Fund administrators can in turn have access to these reports to use in their communications.

Frank Magnani
Global Senior Sales Executive, Interactive Brokers

Andrew Wilkinson
Chief Market Analyst, Interactive Brokers

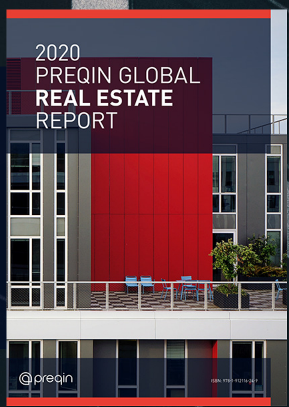
Tom Kehoe
Global Head of Research and Communications, AIMA

Today's hedge fund investors are increasingly voicing specific demands, and flexibility has become paramount for hedge funds desiring to forge deeper investor partnerships. Indeed, there is an increasing number of managers acknowledging the value of customized solutions.

Co-investments, which for a long time were an almost unique arrangement for private equity and real estate investors, are fast becoming a consideration for hedge funds too. Both managers and investors are recognizing the mutual benefits achieved through co-investing, such as generating attractive returns and better aligning their interests.

4.
Real Estate

For our full annual review of the real estate industry, please visit www.preqin.com/grer



Real Estate Key Facts

$992bn

Global private real estate AUM as of June 2019, up from $948bn in December 2018.

$151bn

Total capital raised by 295 funds closed in 2019, compared with $148bn raised from 386 funds closed in 2018.

918

Number of funds in market as of January 2020, collectively targeting $281bn.

9,328

Number of private equity real estate deals completed in 2019, down from 9,795 in 2018.

10.0%

Median annualized net return in the three years to June 2019.

83%

Proportion of investors that intend to commit as much or more capital to the asset class in 2020 compared to 2019.

Real Estate in 2019

Private real estate enjoys another year of growth, but deal numbers decline as asset prices rise

Even as the global economy weakened in 2019, private real estate continued to grow. Investors seeking real estate's steady cash flows poured more capital into the sector, driving the total amount of funds raised to $151bn, an all-time high. The increase in dry powder – along with a 5.3% rise in unrealized value – boosted assets under management (AUM) to a record $992bn as of June 2019, marking the fourth consecutive year of AUM growth for the industry.

However, there are some cautionary indicators. First, fewer vehicles reached a final close in 2019. The number that did close fell to 295, the lowest total in a decade; in 2009, during the Global Financial Crisis (GFC), just 229 funds closed.

Second, capital consolidation in the industry deepened. Forty-four percent of the total capital raised was amassed by the 10 largest funds. Just two of those funds dominated the entire fundraising landscape: Blackstone Real Estate Partners IX, which secured $20.5bn to become the largest private real estate fund ever closed, and Brookfield Strategic Real Estate Partners III, which hoovered up $15bn to become the third largest such fund.

Third, deal volume and value fell amid concerns over rising valuations. Three-quarters of real estate fund managers we surveyed in November 2019 said that asset prices were higher than they were 12 months ago, and rather than pay too much for targets they perceived to be overvalued, some GPs stayed on the sidelines. As a result, the total number of private equity real estate (PERE) deals slid by 4.7% compared with the year before, while aggregate deal value slumped by more than 10%. Even as market conditions became more challenging, fund managers with massive amounts of financial firepower continued to put capital to work. In September 2019, the same month in which Blackstone Group set a record for raising private real estate's largest-ever fund, the firm set another one when it acquired Singapore-based GLP's US logistics portfolio for $18.7bn. This is the largest-ever PERE deal.

Fund Managers Turn to Higher-Risk Strategies and New Niches

Market participants adapted to tougher times in different ways. Some investors sought safety, helping core funds to secure more than 3x as much capital as the year before. Others opted for higher-risk strategies. The result was that aggregate capital raised by opportunistic funds surged by 38% to almost $70bn in 2019, while the amount raised by distressed funds rose by more than 8x to $8.4bn.

As competition intensified, fund managers went on the prowl for promising new niches. One such niche is PropTech, a sector comprising a broad range of businesses that are using technology in innovative ways. These days, more real estate companies are looking to improve operational efficiencies with the help of new technologies. This has bolstered demand for the products and services offered by businesses operating in the PropTech space. Fund managers are well aware of the potential. In 2019, there were 209 real estate technology-focused buyout and venture capital deals, amounting to $13bn in total value; that is almost double the value recorded in 2018.

What's in Store in 2020

As 2020 kicks off, there are 918 funds on the road targeting an aggregate $281bn, an all-time high for both figures. The good news for fund managers is that investor appetite remains healthy. Ninety-three percent of the investors we surveyed plan to either maintain or increase their allocation to real estate beyond 2020. This is not a surprise, given that 87% of investors expressed satisfaction with the performance of their real estate portfolios over the past 12 months. For fund managers, the challenge will be maintaining that performance even if market conditions worsen.

Real Estate Megatrends

Key themes shaping the private real estate industry

Capital Consolidation

Established managers' share of capital raised is growing, with even larger funds coming to market.

Competition for Deals

Heightened competition for assets is driving up valuations, affecting potential returns.

Complex Niches

New niches such as PropTech and new avenues in retail are shaping the industry as they grow.

ESG

ESG is a key consideration when making investment decisions for investors and fund managers alike.

Expected Correction

Many agree that we are heading toward a market slowdown, but the timing of this correction is disputed.

Investing in Tomorrow's World Real Estate

As the market evolves at an unprecedented pace, shaped by the rise of technology and ESG, managers have to flex and adapt to continue to add value

Mike Sales
Head of Real Assets and Real Estate, Nuveen

With high valuations leading to heightened competition for deals, which sectors in real estate investment are proving to be the most attractive?
We remain committed to the needs of our clients, occupiers, and consumers, with an investment focus on dynamic, sustainable cities that appeal from a demographic, infrastructure, and technology innovation perspective. In retail, this includes holding and repositioning only those assets fit for tomorrow's world and incorporating, where desired, more mixed-use elements and a greater emphasis on convenience, experience, and value. Our office strategy is embracing the growing demand for more flexible, innovative space, focusing on the wellbeing needs of the occupier, while an expansion into logistics, and principally last-mile distribution, is a structural not cyclical movement.

There are also structural tailwinds that support an expansion of commercial real estate debt, and an evolution in the residential sector, via the development of modern, purpose-built multi-family housing, and co-living and student accommodation, considering a global, more discerning demand base. Furthermore, incorporating sustainability and technology innovation upfront in investment management is imperative from an investor, occupier, developer, and corporate responsibility standpoint.

The general consensus is that we are currently at the late stage of the market cycle. What can fund managers do to achieve the highest level of value as the real estate landscape becomes increasingly complex?
Real estate pricing is historically keen, but we wouldn't go as far as to say late cycle. With any gradual normalization of global interest rates being postponed indefinitely, the once-deemed 'temporary' and 'extraordinary' monetary conditions look set to remain in place for an extended period. Against this backdrop, we are arguably 'mid' not 'late cycle' as the case for real estate investment vs. alternative asset classes is justified.

Furthermore, global real estate is multi-dimensional and as such can offer a core or value-add investor an array of risk-adjusted returns, security of income, and diversification across a spectrum of asset types, sub-sectors, and markets of varying maturity and quality. At present, core pricing for Grade-A properties in deep, liquid, sought-after markets, with a healthy supply/demand balance, should justify taking on development, repositioning, or letting risk as a route to enhance returns. Alternatively, identifying mispricing in locations or property types that can benefit from improved space optimization and enhanced ESG initiatives, or simply those sectors that are evolving or emerging from major structural changes in demand, will offer rewards to investors willing to embrace and adapt to tomorrow's world real estate needs.

What kinds of challenges does the evolving landscape of technology bring to investors in real estate?
From e-commerce to co-working, technological disruptors are permeating throughout real estate and their impact cannot be ignored. The rise of the internet and mobile devices has fundamentally changed the way consumers behave. What people want their built

environment to provide has fundamentally evolved. We are therefore closely monitoring technological trends to position our assets defensively against them while also identifying the opportunities that can be gained to create value.

For example, digital commerce is driving many changes to how consumers behave and we believe it is an opportunity for retail real estate to evolve into a more exciting and dynamic product. This means creating new experiences by blurring the lines between online and offline retail, capturing more data about how retail is used by brands and consumers, and embracing a new generation of digitally native brands.

At Xanadú, a super-prime shopping center we manage in Madrid, the asset's value proposition goes well beyond traditional retail, with an indoor ski slope, aquarium, and theme park. It also contains non-traditional retail tenants, such as Alibaba, the global retail online marketplace, which opened its first store in Europe at Xanadú in Autumn 2019.

With the advent of 5G and the increasing affordability of sensors, the Internet of Things will accelerate and further increase the potential of Smart Buildings, helping them to become more operationally efficient as well as enhancing the user experience.

As well as trialing and rolling out solutions across our portfolio – from tenant engagement apps to energy efficiency technologies – we have partnered with Edge Technologies in Europe to create the "office of the future." EDGE Olympic is one of the healthiest buildings in the world – being one of the first buildings to receive WELL Platinum – is highly energy efficient, and is a Smart Building, with data from all aspects of the building's operation and user experience centralized into one digital platform.

With environmental and social governance remaining at the top of the real estate agenda, what do you believe to be the most important of these factors when considering new real estate investments?
Sustainability continues to be at the forefront for us when considering potential investments as we transition to the low-carbon economy. We strive to be leaders in responsible investing in the real estate market, not only to ensure that we are contributing toward a more sustainable future, but also because it makes business sense as in many cases investing in the most sustainable, forward-thinking, and advanced assets will have a positive return on investment for our clients too.

However, the changes our industry is now facing no longer just sit within the confines of environmental factors. We are seeing a structural shift with issues of sustainability, demographics, and technology all playing a part. All three overlap and have the potential to massively disrupt the industry, but they also present opportunities to create value. Demographic factors, for example, such as urbanization and generational shifts in consumer preferences, will change the needs of real estate in certain locations, offering savvy investors the opportunity to invest in real estate assets that will become more prevalent and necessary in those geographic areas.

Taking a strategic approach to these structural disruptors is part of our tomorrow's world philosophy, sitting at the core of our investment process and informing our long-term view of real estate investments for the enduring benefit of both clients and society.

Real Estate Living Sectors Move into the Mainstream

From residential to student and retirement housing, structural undersupply in the living sectors is creating attractive opportunities as population needs evolve

Jose Pellicer
Head of Investment Strategy, M&G Real Estate

Helping to Fulfill a Social Need

The living sectors – residential property, hotels, and commercial accommodation from student accommodation to retirement living and care homes – are growing rapidly throughout Europe. Their popularity has grown significantly over the last decade and at 76% of non-mainstream allocations,[1] they form the largest component of what has previously been labelled the alternatives sector in Europe.

The living sectors in general remain structurally undersupplied, largely the consequence of an ongoing lack of housing development across much of Europe, particularly in capital cities with high employment opportunities. In addition, what housing stock does exist increasingly no longer meets the expectations of tenants, who are seeking more experience-led living space at a cost they can meet.

As such, providing tailored, affordable living that also helps to fulfill a social need offers an attractive opportunity for investors.

Robust Fundamentals Underpin Living

Urban populations are growing, meaning demand for all types of housing is expected to rise. People are increasingly choosing to work, live, socialize, and retire in major towns and cities. This leads to rising urban densification and places significant pressure on existing resources.

The global middle class is also expanding rapidly, creating a wealthier, more educated, and technologically integrated global population, which frequently travels and lives abroad, with a particular focus on gateway cities such as London, Paris, and Berlin. Rising demand for experiences over material possessions and greater lifestyle flexibility in all aspects of peoples' lives has changed occupier requirements across the built environment, especially the living sectors. Consumers now increasingly expect high-quality, professional services alongside their space, though requirements vary across cities. Therefore local knowledge is key.

In addition, people are getting older and living longer, particularly in developed economies. This points to a need for a very different kind of housing in the future.

Structural Undersupply Supports Rental Growth

This combination of rising demand and continued undersupply of good-quality accommodation is expected to underpin strong rental growth across these sectors. In particular, we expect the private residential sector across continental Europe to demonstrate healthy income growth over the next few years.

While expected outperformance remains a key determinant behind rising investor interest, there are other, similarly important factors driving appeal. Many of the living sectors also offer defensive characteristics, which are particularly attractive to investors in the late cycle environment. Valuations often hold up better than mainstream sectors during

[1] MSCI Europe Annual Property Index, December 2018.

downturns. They exhibit lower correlations with other property sectors and asset classes due to different cyclical drivers, and therefore provide diversification benefits.

The living sector's attractiveness is further enhanced by its strong social links, with housing generally very high on many governments' agendas, particularly given rising affordability and supply issues.

Vast Living Universe Reflects Attractive Opportunities

There are a variety of opportunities within the living sector that can complement investors' existing commercial real estate portfolios.

Student housing in continental Europe is entering a growth phase, given the rising numbers of students studying abroad, looking for safe, well located accommodation that can be easily arranged. Countries such as Italy, Spain, and the Netherlands, for example, offer an attractive balance between students' educational and social demands.

Care homes and retirement living across Europe reflect a major opportunity to improve the supply and quality of accommodation since the prospect of living longer equates to a greater need to maintain living standards. However, with most governments facing budget cuts, there is an opportunity for institutions to bridge the gap.

Private renting at an older age as a means of accessing better amenities is also becoming more commonplace. In the Nordics, for example, both the concept of renting and the elderly healthcare system are more established, meaning the investment universe is typically larger than in other markets.

The diversity of Europe's private rented market means its potential investment universe is vast. Different countries offer different characteristics including lease lengths, growth, and income potential – the latter often dependent on the level of regulation.

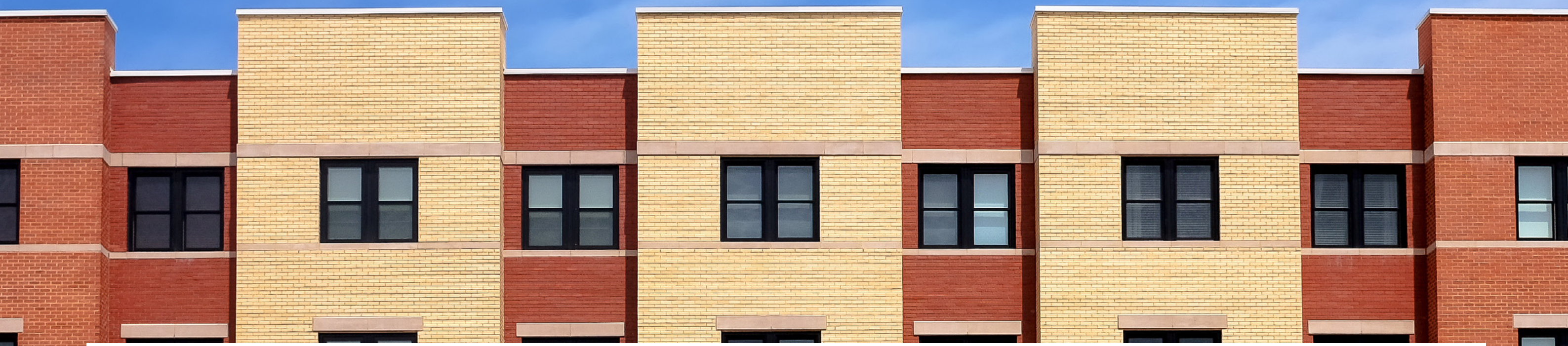
Complementing the opportunity in living, the hotel sector is relatively mature across most countries, with rising global demand underpinned by the emergence of middle-income Asian travelers visiting Europe. Long-lease hotels have become a relatively core investment class, given typical inflation-linked leases. Franchise and management contract hotels offer greater opportunities to drive enhanced risk-adjusted returns, once again tapping into long-term structural demand drivers.

Investors Tap into 21st Century Living

The living sectors present an opportunity to tap into the underlying growth trends of 21st century living. Consumers now demand an increasingly seamless experience with their living accommodation, which spans an entire lifecycle: from their early 20s as students, to developing their careers as young professionals, before starting a family and eventually retiring.

Europe's vast living universe offers a variety of income and growth characteristics, alongside its defensive qualities and diversification benefits. We believe these factors make it an attractive long-term proposition for investors.

Real Estate: In Short



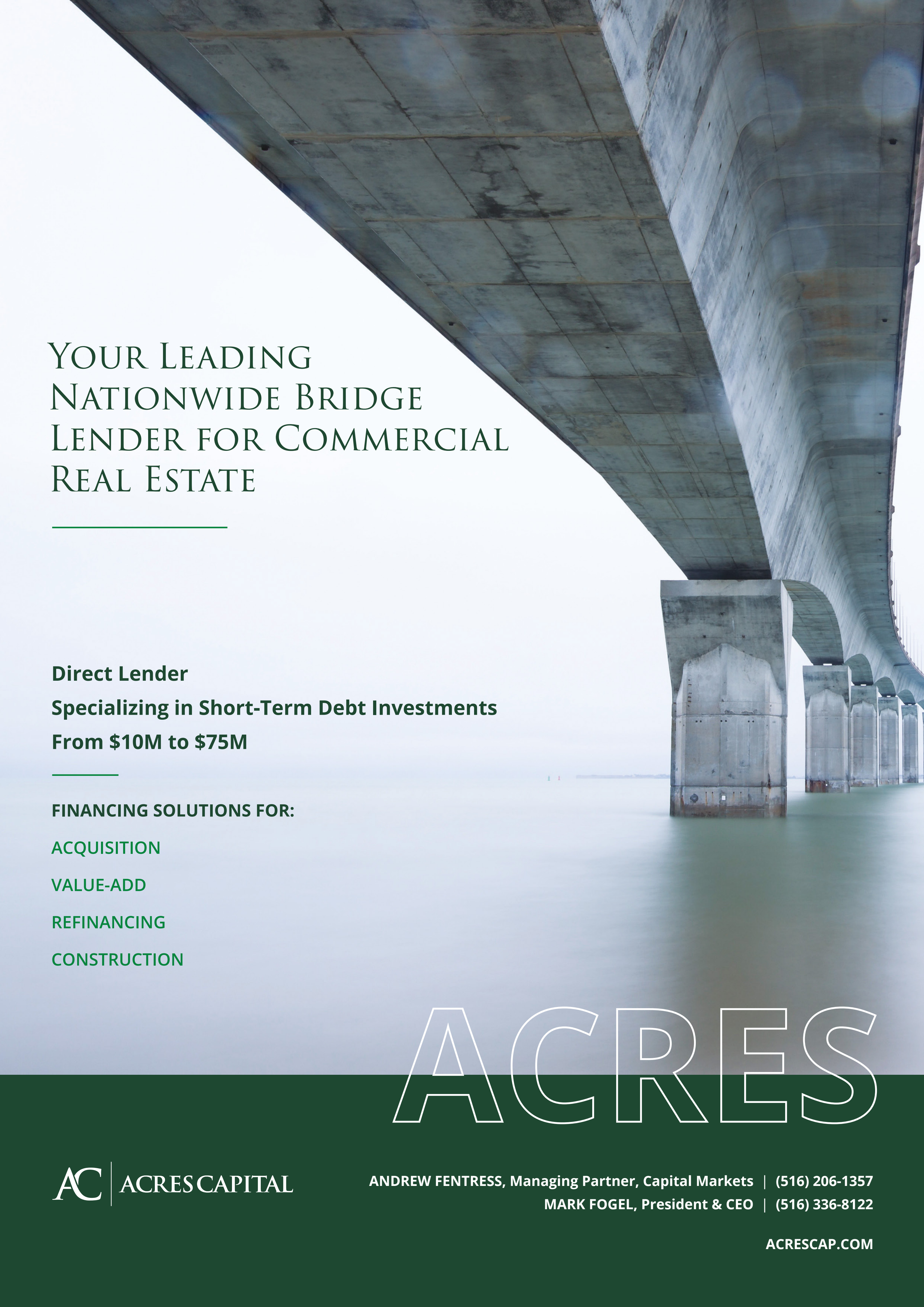
Global investors continue to prefer the valued gateway markets of San Francisco, New York, and Washington, DC – with proven track records of performance even though cap rates compressed significantly later in the economic cycle.

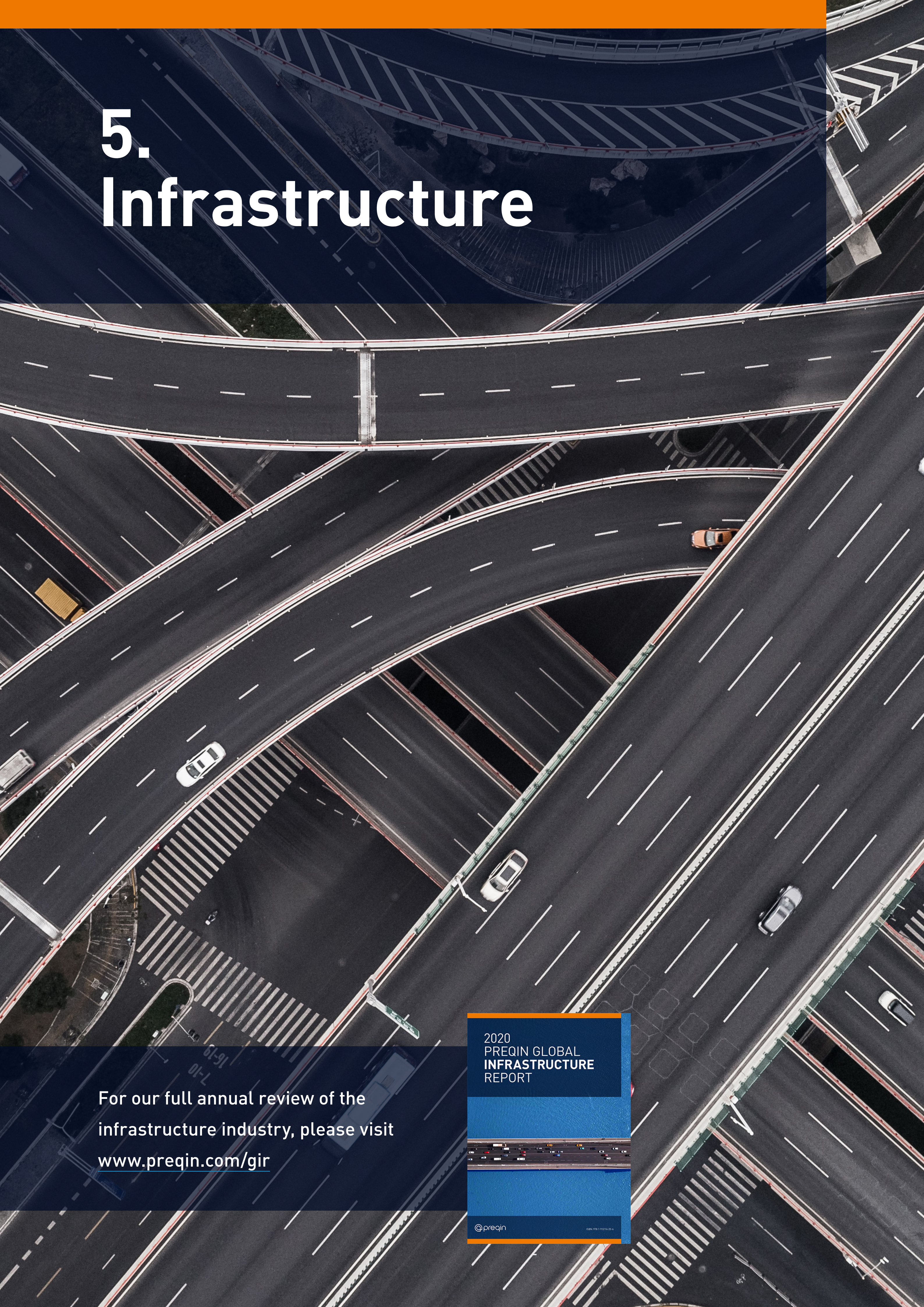
Laura Dietzel
Partner,
Real Estate Senior Analyst, RSM US LLP

Andrew Fentress
Managing Partner,
ACRES Capital

Mark Fogel
President & CEO,
ACRES Capital

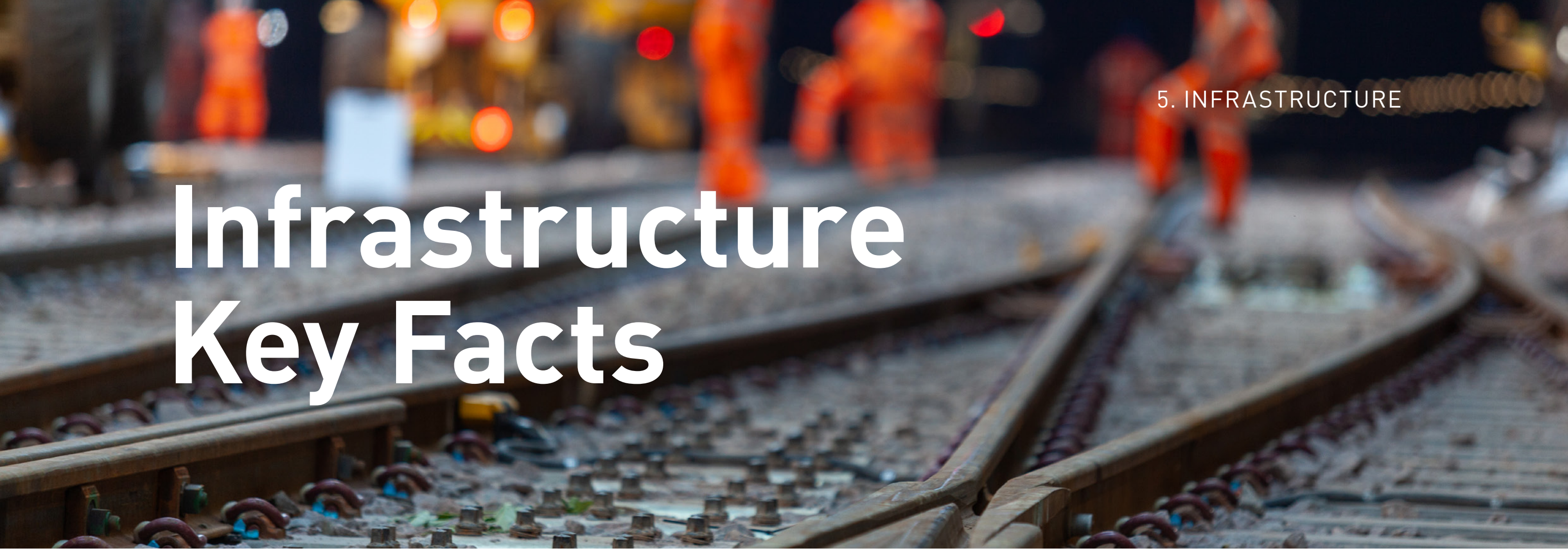
There are some good things happening in the real estate landscape related to innovation, creativity, and equity formation – particularly in some of the more developed markets like the US, but also in Eastern Europe and the UK. There's been a lot of retail disruption as a result of the 'Amazon effect' in the US: new equity capital is being formed to redevelop and repurpose assets that once served the retail community, which is an encouraging and productive use of equity capital. There are also new concepts around co-living and co-working: taking existing capacity and repurposing it. We believe these are encouraging trends.


YOUR LEADING NATIONWIDE BRIDGE LENDER FOR COMMERCIAL REAL ESTATE
Direct Lender
Specializing in Short-Term Debt Investments
From $10M to $75M
FINANCING SOLUTIONS FOR:
ACQUISITION
VALUE-ADD
REFINANCING
CONSTRUCTION
ACRES
AC ACRES CAPITAL
ANDREW FENTRESS, Managing Partner, Capital Markets | (516) 206-1357
MARK FOGEL, President & CEO | (516) 336-8122
ACRESCAP.COM



5. Infrastructure

For our full annual review of the infrastructure industry, please visit www.preqin.com/gir



Infrastructure Key Facts

$582bn

Global AUM as of June 2019.

$98bn

Total capital raised by funds closed in 2019, a record high.

10.6%

Median annualized net return in the three years to June 2019.

2,507

Number of deals completed in 2019, down from 2,718 in 2018.

84%

Proportion of investors that intend to commit as much, or more, capital to the asset class in 2020 compared to 2019.

253

Number of funds in market as of January 2020, collectively seeking $203bn from investors.

Infrastructure in 2019

2019 was a capstone to a decade in which infrastructure truly entered the mainstream. Success has fueled future challenges, but the infrastructure train keeps rolling

In the private capital space, infrastructure does not have the same exciting reputation as venture capital, the high-flying dominance of private equity, nor the intrigue of new-kid-on-the-block private debt. Investors have typically looked to infrastructure to add ballast to their portfolios: hedging against inflation and adding a revenue stream to counteract the substantial but unpredictable payouts from other alternative asset classes.

For all that, it is sought after by investors, which have been expanding into the asset class at a gradual pace for some time. There are now around 4,000 institutions making allocations to infrastructure, a substantial pool of capital for fund managers to appeal to. And appeal they have – as investors have become active in the industry, new fund managers have formed to raise vehicles and cater to demand. There are now 707 active infrastructure fund managers. This is a new record for the industry, and demonstrates that infrastructure has become a mainstream part of the alternatives industry.

Fundraising has been substantial in the past few years, and reached new highs in 2019. A total of $98bn was raised from investors – a new record, of which half went to just five funds. Mega private capital funds have been a feature of the industry for some time, but given the limited size of the total infrastructure fundraising market, they wield outsized influence.

Partly fueled by such strong fundraising activity, assets under management (AUM) hit new records in successive years throughout the 2010s. As of June 2019, AUM stands at a record-high $582bn, having crossed the $500bn mark for the first time at the end of 2018. And fund managers have been putting that capital to work: called capital reached a peak of $89bn in 2018, and 2019 looks set to approach or surpass that level. Distributions in H1 2019 have been at a record pace too, even if overall net capital flow remains negative.

The truth is that infrastructure can no longer be classed as a dull counterweight to more exciting sectors. Median net IRRs for infrastructure funds have hovered around 10-11% in recent vintage years, and overall the industry has returned a net annualized 7.7% in the year to June 2019, and 8.7% in the decade to that point. It has coupled strong returns with consistency, with among the lowest variation in rolling one-year returns of any asset class.

A period of strong performance could not come at a better time for investors: rock-bottom interest rates, low bond yields, and sluggish global growth have all hit their portfolios. The difference between gains from bonds or fixed-interest products and the ambitious return targets of many institutions has never been wider. Infrastructure has been particularly sought after as a means of plugging that gap – a predictable income stream, yes, but one sufficient to help make up for volatile returns in other markets. This has been particularly appealing as we head toward what is generally agreed to be an all-but-certain equity market correction – even if no-one can agree on just when to expect it.

But success, as ever, is not all positive. Good returns have drawn more capital into the asset class, which has meant more competition for attractive investment opportunities. This has pushed up asset pricing, and made deal-making more challenging. The infrastructure deals market has slackened in the past two years, with assets in North America and Europe requiring more lengthy due diligence in order to make sure high pricing has left enough potential upside. Ultimately, it has eaten into the returns that fund managers can expect to make in the coming years.

Infrastructure Megatrends

Key themes shaping the unlisted infrastructure industry

Capital Concentration

The majority of capital flowing into the industry has been swallowed by a small group of the largest fund managers, creating a two-tiered fundraising and deals market.

ESG

Arguably the hottest topic in the investment world, ESG is a key consideration behind investment decisions for investors and fund managers alike. Is it just a phase, or is ESG here to stay?

LP Sophistication

As much as fund managers are in a constant race for the best opportunities, so too are investors always looking for the next big thing in allocating. We look at how LPs are increasingly evaluating, contacting, and competing with fund managers themselves.

Competition for Deals

With new firms being founded and bringing funds to market, existing managers raising larger-than-ever vehicles, and investors developing a taste for direct investment, there is more competition for prime assets than ever before.

Market Slowdown

If there is one thing almost everyone can agree on, it is that there is a market slowdown coming. But when exactly to expect it, what sectors will be most exposed, and whether investors should be adjusting their approach in anticipation are all hotly contested.

Performance Pressure

Infrastructure has performed well in recent years, but maintaining those returns is a challenging prospect. Fierce competition, large dry powder stores, and sluggish global growth have all made it more difficult to return tomorrow what you returned yesterday.

Creating Value in Infrastructure

Martin Lennon, Head of Infracapital, on ESG, rising competition and the "enormous potential" to create value

What role does private capital have in reducing the funding gap in European infrastructure?
It is estimated that Europe needs to invest about €270bn a year between now and 2030 to build new infrastructure and to maintain the existing network. A significant amount of this investment requirement is expected to be funded by private investment, which will play a vital role in driving economic growth and global competitiveness.

How is competition for deals driving changes in the market, and has it altered your investment approach?
The market has certainly evolved as a result of growing competition, and what you see now is even more variety in investment strategies as a result. There's differentiation by geography, sector and risk/return appetite, with strategies such as core, core-plus, super core, and value add to address specific segments in the marketplace. That kind of specialization reflects, to a certain extent, the challenge of demand for assets vs. supply.

We have positioned ourselves quite deliberately to participate in the mid-market, which we define as businesses of up to about a billion pounds (or euros) in enterprise value. Here we see the biggest proportion of opportunities to find or create assets and to drive value creation to deliver attractive investor returns.

What value creation opportunities do you see in the infrastructure space?
There's enormous potential, and I'll make three points about that. First, value creation starts with good origination. We operate in two core strategies: greenfield – which is about building and delivering new infrastructure – and brownfield, which is about acquiring operating infrastructure. Across both strategies, we go out into the marketplace and

Martin Lennon
Head of Infracapital

proactively procure opportunities. With our brownfield strategy, about one in three of our deals have been proprietary. On top of that, about another third are what we call 'limited competition.' Instead of full-blown auctions, you can get to a one-on-one, bilateral conversation relatively quickly and look to avoid squeezing the last penny out of the bid price.

On the greenfield strategy, about 60% of our deals are non-competed. That's because we work extensively with developers, construction companies, entrepreneurs, and corporations and position ourselves to understand where the deal flow is coming from and when. We seek to help to get development-stage propositions to the late stage where they're more or less certain to happen, but where we can still influence key elements around construction and financing. Over time, you are able to form strategic alliances or joint ventures and become a trusted financing partner. From a value-creation point of view that's incredibly powerful, because you avoid the cost of competition.

Second, there's creating value through delivery. In a greenfield context that's delivering a construction project, a network buildout, or taking a pre-operating opportunity and making it operational, so if delivered successfully, you should benefit from a reduction in the risk premium when you sell. In a brownfield context this refers to situations where delivery is "complex", but where there's the potential to improve the asset, de-risk and drive value. That could mean carving out a division from a corporation, putting in place a new management team, implementing a new billing system, and for creating a standalone company.

The third example is the platform approach, which involves growing a small- to mid-cap company and transforming it into a real leader in its sector. If you can show that the growth that you've delivered is expected to continue you can drive some very exciting returns. We see this a lot in our greenfield strategy – we start with constructing assets, but with a view that these become multi-asset platforms where you can put in place quality management teams and drive synergies and efficiencies.

Let's talk about ESG. How do you see its role in the industry – is it seen as an optional extra, or is it more critical than that?
I think we need to take the ESG opportunity as far as we can, because infrastructure provides us with a relatively unique opportunity to make a positive impact on the environment and society. At Infracapital, we issued our first comprehensive ESG report to our investors last year, and we've identified a set of KPIs that we want to manage and measure transparently across our portfolios and within our team. These KPIs include, for example, climate impact, diversity, employee wellness, data, cybersecurity.

For those measures, we will be looking at equivalent businesses and industries to see where there are differences, so that we can use best practice. It's a huge advantage having a large portfolio of companies; while one might be a broadband business and another might be a waste-to-energy business, some KPIs share common features. And if one business has an effective solution, we can share learnings and help others come up to that standard. What we want to drive is ongoing improvement across those KPIs, so that every asset is proactively looking to deliver best practice across the board.

Infracapital

Infracapital invests in, builds, and manages a diverse range of essential infrastructure to meet the changing needs of society and support long-term economic growth. We take an active role in all of our investments, whether nascent or large, to fulfill their potential and ensure they are adaptable and resilient. Our approach creates value for our investors, as we target investments with the scope for stable and sustainable growth. Our portfolio companies work closely with the communities where they are based, to the benefit of all stakeholders. Infracapital is well positioned to deliver the significant investment required to help build the future. The founder-led team of experienced specialists has worked with more than 45 companies around Europe and has raised and managed over £5bn across five funds.

Infracapital is part of M&G, a leading European savings and investments business. M&G manages the long-term savings of more than seven million people and is a major investor in the UK and in the global economy. Total assets under management are £341bn (as at 30 June 2019).

www.infracapital.co.uk

6.
Natural Resources

For our full annual review of the natural resources industry, please visit www.preqin.com/gnrr

Natural Resources Key Facts

$230bn

AUM[1] reached a new record as of June 2019.

318

Number of funds in market as of January 2020, collectively targeting $205bn.

$109bn

Aggregate capital raised in 2019, the highest annual total over the past 10 years.

17.6

Average number of months spent on the road by funds closed in 2019 (vs. 17.1 months in 2018).

77%

Proportion of surveyed investors that intend to commit the same amount or more capital to the asset class in 2020 compared to 2019.

8.2%

Median annualized net return in the three years to June 2019.

[1] *Excludes Private Equity and Infrastructure fund types with a focus on natural resources.*

Natural Resources in 2019

Strong fundraising and AUM numbers, boosted by mega infrastructure funds investing in energy, masked a challenging landscape for natural resources funds

At first glance, the headline numbers for 2019 are strong: natural resources assets under management (AUM) surpassed $760bn, a new record. And fundraising hit a high of $109bn, exceeding $100bn for the second year in a row. But these figures were bolstered by the closing of mega infrastructure funds that also invest in energy assets. For natural resources and timberland fund types only[1], 2019 proved to be a challenging year.

Indeed, the number of natural resources funds closed slid for the second straight year, dropping from 149 vehicles in 2018 to 128 in 2019, reflecting a tougher environment for fundraising in this asset class. Performance also disappointed investors: the rolling one-year median net IRR to H1 2019 plummeted to a 10-year low of 1.5%. Amid volatility in commodity prices and rising geopolitical tensions, the industry struggled to gain momentum.

Still, in a quiet year for fundraising, there were some bright spots. Africa-focused natural resources funds, for instance, had a successful year. They raised 10x more capital than in 2017, and made up close to a third (30%) of fund closures in the Rest of World region.

Looking beyond fundraising to the investor universe, we see several emerging trends. The investor pool is expanding, with increased participation from institutions such as endowment plans and private wealth investors. The investor base is also becoming more geographically diverse. While North America and Europe are still the largest investors in natural resources, comprising 52% and 22% of the total respectively, Asia is becoming a significant player on the global scene: it now makes up 16% of the investor universe.

The Rise of ESG, Transitioning toward a Low-Carbon Economy

Energy assets make up the lion's share of natural resources AUM. As the global economy increasingly moves away from fossil fuels toward renewable sources of energy, investments in natural resources are shifting in this direction.

At the same time, the rise of ESG is driving growing investor interest in sustainable farming, as well as in the agricultural technologies that make greener methods of food production possible. This increasing focus on environmental sustainability is generating new opportunities for investment in the agriculture/farming sector, boosting aggregate capital raised by agriculture funds by 100%, from $1.8bn in 2018 to $3.6bn in 2019.

A Challenging Outlook for Fundraising

As 2020 kicks off, there are 318 vehicles in market seeking a total of $205bn. Just over half (56%) of funds in market have held at least one interim close with only about a quarter (28%, $58bn) secured so far, which is indicative of a crowded fundraising environment.

That's not all. Fund managers are having to grapple with a tough exit environment, rising asset valuations, commodity market volatility, and geopolitical uncertainty. Amid these challenges, investors are likely to put ever-greater emphasis on strong track records when selecting managers. Those that make the cut will have to show that they can deliver results even as market conditions become less favorable.

[1] *Excludes Private Equity and Infrastructure fund types with a focus on natural resources.*

Natural Resources Megatrends

Key themes shaping the natural resources industry

Sustainability

Investors are increasingly taking environmental, social, and governance (ESG) factors into account, pushing fund managers to do the same.

Geopolitical Tensions

In 2019, geopolitical friction from unrest in the Middle East to the US-China trade war impacted energy prices and weighed on global demand for commodities.

Climate Change

Higher temperatures, rising sea levels, and extreme weather events resulting from climate change have the potential to disrupt the production and distribution of vital natural resources, from food to energy.

Technology

Technological innovations such as artificial intelligence (AI), big data, and the Internet of Things (IoT) are helping to improve efficiency and enhance productivity in sectors across the industry, from renewable energy to sustainable farming.

Performance Pressure

Geopolitical uncertainty and trade tensions have dampened global demand for commodities and hurt returns of natural resources investments.

The Global Push for Sustainability

How the world's largest farmland manager is finding solutions to the global sustainability challenge and improving its carbon footprint

Justin "Biff" Ourso
Head of Real Assets, Nuveen

How are investors in natural resources using big data and AI to more efficiently manage their investments?
Big data shines a light on what has previously been viewed as ambiguous information. When it comes to investing in natural resources – farmland, timberland, energy – sustainability is essential for assessing risk and preserving long-term value. Where does big data come in? In our due diligence for land purchases, for example, we combine data from satellite imagery to understand historical land use patterns, while matching it to government global positioning system data used to substantiate land claims. This is particularly important in regions where we must adhere to regulatory frameworks that promote zero deforestation and sustainable agriculture.

Technology plays a major role in informing our farmland investment and management approach. Our models consider the rising world population, changing dietary patterns of expanding middle-income classes in developing markets, as well as the reduction in arable land in the coming decades and how such factors will drive the supply-demand balance for food and fiber. We also analyze data that relates to climate change, because its manifestations – from droughts and floods, to wildfires and deforestation – represent a threat to sustainable agricultural production and enduring investor value. Data and technology are strengthening our sustainability practices across our global farmland assets, potentially increasing alpha and managing risk for investors.

Are managers making more of a conscious effort to reduce their carbon footprint and move toward more responsible and sustainable investments?
The realities of climate change and carbon-related impacts have further strengthened our resolve to keep sustainability at the forefront of our policies, strategies, and practices every day. Our parent company, TIAA, endorsed the Task Force on Climate-Related Financial Disclosure (TCFD) in December 2017 as it supports and appreciates the importance of climate-change-related risks and opportunities, as well as disclosure and transparency. Nuveen has a multi-disciplinary working group to explore ways to measure climate risk across asset classes, leveraging scenario analysis as supported by TCFD.

As the largest farmland manager in the world and a long-time responsible investor, we are very much focused on mitigating the impact of climate change on agriculture systems and our agriculture investments, while also mitigating the impact of agriculture on climate change. It needs to go both ways in order to have an impact. We are building and adopting standards for sustainable agriculture, which both improve resilience to a changing climate but also lessen our overall impact on GHG emissions. In August 2018 for example, we deepened our commitment to discourage deforestation – a significant contributor to global carbon emissions – by adopting a Zero Deforestation Policy for our Brazilian farmland investments. This prevents the depletion of forested areas and native vegetation on land we are managing, or intend to acquire, for our investors. We also invest in climate data that tells us about our risk exposure across different regions and crops, compared against varying climate scenarios. This helps us to create an educated and proportionate strategy to diversify risk and mitigate climate impact.

This mindset informs how we invest in other areas as well. Through our private equity impact strategy, we seek out companies with innovative technologies that improve resource efficiency and reduce carbon intensity in production processes and supply chains. In 2018 alone, these investments saved 1.8 million tons of CO^2e.

Are you seeing more demand for ancillary services/ infrastructure to overcome water scarcity and remedy infrastructure shortcomings? If so, what challenges will this bring?
Global water crises and shortages demand new solutions and better metrics to track performance and ensure responsible management. These extreme conditions can fallow acreage, depress crop yields, reduce annual returns, and endanger the long-term productivity of natural resource assets. Severe droughts in California, Australia, and Brazil in recent years have also affected crop yields.

Across our permanent crop properties (tree fruits, nuts, citrus, grapes), we implement efficient drip-line and micro-sprinkler irrigation systems. On farmland using flood or furrow irrigation, we aim to use recyclable polyethylene piping. When combined with other water-management techniques, these pipes can improve water-use efficiency by 25%. On Nuveen properties in the Southern US and Australia, techniques like precision land leveling are being introduced to improve drainage, control erosion, and reduce overall water use. The techniques we employ are designed to improve sustainability and efficiency. When used, they can cut overall water usage dramatically.

Invariably, an investment in natural resources – farmland and timberland in particular – leave an investor exposed to the vagaries of Mother Nature. In a warming, more variable climate, ensuring the quality and quantity of water resources is perhaps the most important challenge. Implementing mitigation strategies requires investors and managers to have the requisite knowledge, and also financial capital to invest in the improvements and programs. There are also potential opportunities for governments, policymakers, and private investors to come together to address large-scale infrastructure solutions at a more elevated, regional, state, or even federal level.

A weaker-than-expected global growth outlook has created lower commodity prices. Where are you seeing the most attractive opportunities as a result?
As global growth has slowed, commodity prices have reflected lower current and forecast demand. The US-China trade war has been and is projected to be a drag on global GDP. However, it does present upside potential in the event of early-relaxation trade barriers for many commodities. With weaker global growth already incorporated into suppliers' plans (lower rigs, reduced fracking production growth, etc.), the slowdown in supply will create dislocations in time and geography throughout supply chains, producing opportunities. If the slowdown in growth is harsher than expected, price action may support trend-following strategies.

Nuveen

Nuveen, the investment management arm of TIAA, is one of the largest investment managers in the world with $1tn in assets under management.[1] Managing a broad array of assets across diverse asset classes, geographies, and investment styles, we provide investors access to a wide range of liquid and illiquid alternative strategies.

We offer real asset strategies through our investment specialists. AGR Partners provides growth capital to leading mid-market agribusinesses and food companies. Westchester has more than 30 years of experience in acquiring, managing, and marketing agricultural real estate assets around the world, and is the largest manager of farmland assets globally.[2] GreenWood Resources specializes in the acquisition and stewardship of forestry assets. Gresham Investment Management is recognized as one of the world's leading investment managers focused exclusively on portfolios providing investors access to a diversified array of commodities.

www.nuveen.com

[1] As of 30 September 2019
[2] Source: Pensions & Investments, 30 Sept 2019. Rankings based on institutional tax-exempt assets under management as of 30 Jun 2019 reported by each responding asset manager

Real Assets: In Short

The current state of the US fundraising market is interesting for most infrastructure funds. In general, the universe of US-based LPs interested in infrastructure is not nearly as deep as those in other geographies; however, the interest level continues to grow annually. For the past several years we have heard from LPs and/or consultants that they backed a couple of very large, global infrastructure players so their portfolio is fully allocated in this sector. However, as interest grows and LPs' portfolios evolve, we are slowly hearing less of this. In fact, many US LPs are beginning to focus on adding to their infrastructure allocation for diversification reasons as well as outperformance. We are in the early innings in the US, but we believe over time there will be more interest in the US lower middle market, but also a move away from core strategies to value-added strategies or, as we say, "higher alpha infra."

Brian DeFee
Managing Director,
Capstone Partners

Some investors have continued to allocate to energy but have focused on midstream/infrastructure or downstream, which are considered less risky. Inefficiencies and bottlenecks continue in the gathering and distribution systems, providing ample investment opportunities. Renewables are also of increasing interest as climate change has been accepted by most as a legitimate threat, and managers that can invest in viable alternative energy opportunities while producing solid returns will attract capital. Then there are the contrarians who believe the adage that uncertainty breeds opportunity.

Steve Standbridge
Managing Partner,
Capstone Partners

ESG INDICATORS ON PREQIN PRO

A common language of responsible investing for private capital markets

SOURCING ESG DATA

Full transparency around responsible investing

Identify private capital firms' ESG policies and affiliations across asset classes, and better understand the ESG profile of a private capital fund against its peers or the broader market.

DUE DILIGENCE

Measure ESG factors across funds

Overcome the lack of ESG standardization with a methodology that scores private capital funds based on the industry and parent company headquarters of their underlying assets.

BENCHMARK ANALYSIS

Compare ESG factors across funds

Compare funds' ESG characteristics side by side with access to a practical framework for benchmarking private capital funds based on asset-level data across industries and geographies.

PERFORMANCE ATTRIBUTION

Correlate ESG factors to funds' financial performance

Enhance your fund performance analysis with integrated ESG factors to identify potential risks and opportunities beyond technical valuation.

Register your interest in ESG Indicators at go.preqin.com/esg