The Q2 2016
Preqin Quarterly Update

Infrastructure

Insight on the quarter from the leading provider of alternative assets data

Content includes...

Fundraising
Amount of capital secured by funds closed in Q2 was down 74% on Q1.

Investors in Infrastructure
Over half of active investors plan to commit more than $100mn to infrastructure funds in the next 12 months.

Deals
Number of completed infrastructure deals declined by 51% compared with Q1.

Performance
Infrastructure returns are among the least volatile of all private capital strategies.

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alternative assets. intelligent data.

Foreword - Tom Carr, Preqin

Fundraising proved challenging for infrastructure fund managers in Q2 2016, with the eight unlisted infrastructure funds closed securing $4.2bn, the lowest quarterly total since Q3 2012. However, infrastructure is performing to investors' expectations, with unlisted funds displaying relatively consistent returns and the PrEQIn Infrastructure Index generating modest gains in a period in which the S&P 500 TR declined 6%.

As a result, infrastructure investors are prepared to commit more capital to the asset class than they were a year ago: 58% of active investors will invest more than $100mn in unlisted funds over the next year compared to 42% in Q2 2015, while 82% plan to make multiple fund commitments, compared to 68% the previous year.

With the estimated aggregate value of infrastructure transactions rising to record levels at the start of 2016, Q2 saw seen deal activity cool. Q2 2016 witnessed a decline of 51% and 67% in the number and estimated aggregate deal value of completed infrastructure transactions respectively compared to Q1. However, the 564 transactions in H1 2016 valued at an estimated $258bn still represent a large increase on activity in H1 2015, when only 425 deals completed for an estimated $188bn.

Institutional investors in infrastructure will predominantly target domestic investments over the next 12 months, including three-quarters of Europe-based investors that will seek Europe-focused funds. A recent survey by Preqin elaborates further on the questions surrounding the UK's withdrawal from the EU and the effect on alternative investments in the region. With infrastructure a long-term investment, three-quarters of recently surveyed investors believe they will see no change in the their infrastructure portfolio performance over the next 12 months, although 41% stated they will invest less in the UK and 24% will be seeking less investment in the EU in the short term. Over longer term, most will make no change to their investment activity in the UK (68%) and EU (81%).

Preqin's **Infrastructure Online** is an indispensable tool for all firms looking to market funds, develop new business or find new partners in the coming months. Behind every data point in this report is a wealth of individual firm- and fund-level data available on Preqin's leading online services. We hope you find this report useful, and welcome any feedback you may have. For more information, please visit www.preqin.com or contact info@preqin.com.

Contents

Data Source:

Infrastructure Online is Preqin's flagship online infrastructure information resource. Constantly updated by our team of dedicated researchers, it represents the most comprehensive source of industry intelligence available today, including infrastructure transactions, fund managers, strategic investors and trade buyers, net-to-investor fund performance, fundraising information, institutional investor profiles and more.

For more information, please visit: www.preqin.com/infrastructure

Challenges and Opportunities in Infrastructure

- Louis de Saint-Marcq , Managing Partner, Capstone Partners

What is your current perspective on the unlisted infrastructure fundraising environment?

Infrastructure fundraising has been steady over the last several years. While fewer funds closed in 2015 vs. 2014 (29 vs. 34, respectively) the aggregate capital raised was actually higher in 2015 than in the previous year ($55bn vs. $49bn, respectively). As a result, average fund size increased from just over $1.1bn in 2014 to almost $1.8bn in 2015. Fund managers have delivered on promises with good returns and distributions have been high, which are two key elements for keeping investors happy. In this prolonged period of low interest rates (on both sides of the Atlantic), infrastructure funds have provided long-term visibility on yield, without many alternatives in the marketplace.

My sense is that the fundraising outlook is bright, despite some extremely high asset prices and significant dry powder. However, we have seen more intense scrutiny of managers' deal pipelines and their ability to deploy capital cautiously in this environment. In the US, there is increased scrutiny of fund managers' investments in or around the "oil patch". Thankfully, WTI/Brent has gained some momentum and is back to near $50 per barrel. However, investors are sceptical about assets with heavy exposure to the energy sector.

Have investors taken a different view due to higher asset valuations?

Generally, it is believed that core asset prices are frothy due to increased competition from traditional infrastructure managers, pension funds, sovereign wealth funds, insurance companies and others. However, I do not believe institutional investors are chasing more expensive deals if you include core-plus, value add and even greenfield opportunities. Commitments have gradually increased since the asset class is now more established: infrastructure investment programs have become more mature, capital has been distributed to investors on the back of solid deals and tickets are naturally larger.

Are investors now seeking more favourable terms and conditions than they have in the past?

Many first-time funds, platform extensions or less established firms will seek sponsor capital to launch the fund and/or to potentially complete a couple of deals to make the fund offering more attractive. These sponsor commitments often require some sort of special economics. Our advice to GPs is that if you have to give special terms, tie them only to the specific LP commitment and not to the overall economics of the firm (try not to give up a share of the GP or offer reduced carry on all commitments). We also suggest tying any special economics to a first close and/or the size of the commitment so that those terms do not get caught in a most favoured nations clause.

How can first-time fund managers stand out and gain traction in the market among more established firms?

You need to have the story right and secure commitments from first-close investors before addressing the broader market. When advising clients, Capstone often suggests focusing on a limited number of investors that know the team and are not averse to first-time funds or committing to a first close. The most common mistake is that fund managers speak to a large number of investors without support from anchors, and therefore lack the momentum for a sizeable, meaningful first close. While we are in a prosperous fundraising environment, the market remains competitive; frequently, we hear of infrastructure managers being on the road for 18-24 months. The other thing to bear in mind is that it is helpful to have a concrete pipeline of deals which can be executed rapidly after the first close. An investor always prefers to spend time on an anchored portfolio, so they can have visibility of the fund's portfolio.

Has there been the same level of interest in co-investments with infrastructure firms as there has been for private equity and real estate firms?

Absolutely, mainly for two reasons. First, co-investing is the best way for an investor to reduce its average fee paid to the GP. Second, some investors are convinced they can select the best deals and enhance their overall portfolio performance. Large infrastructure deals are often syndicated between several investors that write big tickets. Furthermore, charging fees on co-investments is not always standard. It really depends on the GP's involvement in the asset and its ability to impose fees on the investors. It should be noted that LPs frequently ask for co-investments; however, ultimately, many of them are ill equipped to properly evaluate and underwrite the risk/return profiles of complex assets and will rely heavily on the GP.

The myriad of risks involved in investing in infrastructure opportunities include, but are not limited to, the following: political/regulatory/headline risk, social/ESG risk, technological risk, operational and financial risk as well as commodity risk. We have also heard from some GPs that cybersecurity risk (e.g. the risk that an electric grid will be hacked and ultimately taken offline) is a growing concern for some infrastructure investors. While none of these risks are insurmountable, they highlight the need for dedicated investment professionals who can fully underwrite them.

Capstone Partners

Founded in 2001, Capstone Partners is a leading independent placement agent focused on raising capital for private equity, credit, real assets and infrastructure firms from around the world.

Louis de Saint-Marcq is a Managing Partner in the European office of Capstone Partners and is responsible for fundraising and origination with a focus on Nordic countries, UK, Belgium and Iberic region.

www.csplp.com

Fundraising in Q2 2016

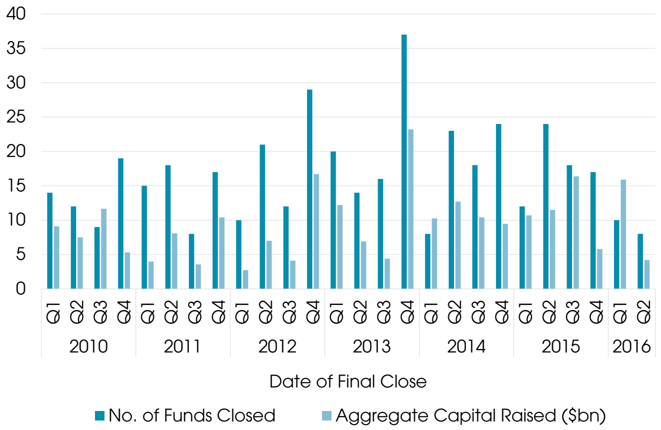
Q2 2016 saw a significant reduction in the level of institutional capital secured by unlisted infrastructure funds when compared with Q1: eight unlisted infrastructure funds reached a final close, raising just $4.2bn, while Q1 saw 10 funds secure $15.9bn (Fig. 1). This represents the lowest quarterly amount of capital secured by unlisted infrastructure funds since Q3 2012 ($4.1bn).

Since the start of 2015, 89 unlisted infrastructure funds have reached a final close, raising a combined $64.5bn in capital. Unsurprisingly, North America and Europe collectively dominate the unlisted infrastructure market in terms of the number of funds closed and the aggregate capital raised, representing 61% of the number and 70% of the aggregate capital raised by funds closed since 2015 (Fig. 2).

While only 18 funds have closed in H1 2016, infrastructure firms have been more successful in securing or exceeding their initial target sizes at final close; the average proportion of target size achieved stands at 108% for funds closed in H1 2016, the largest in the period 2008-H1 2016 (Fig. 3).

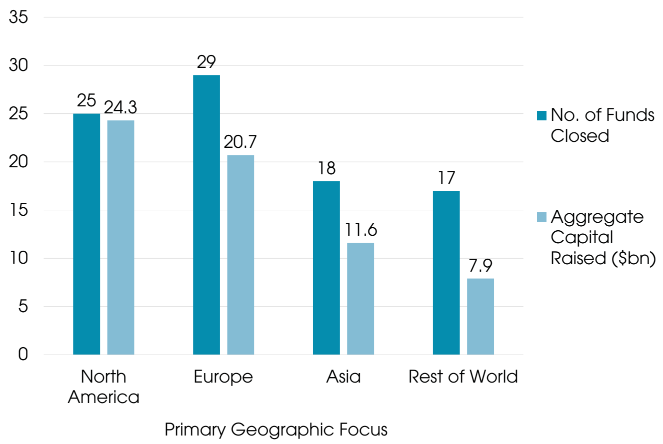
The largest unlisted infrastructure fund to close in Q2 2016 was Carlyle Power Partners II (Fig. 4). The fund secured $1.5bn, and like its predecessor, invests in the US power generation sector including both traditional and renewable energy opportunities. Notably, two of the top five funds close in this period are managed by France-based Meridiam, raising a combined €1.65bn.

Fig. 1. Global Quarterly Unlisted Infrastructure Fundraising, Q1 2010 - Q2 2016



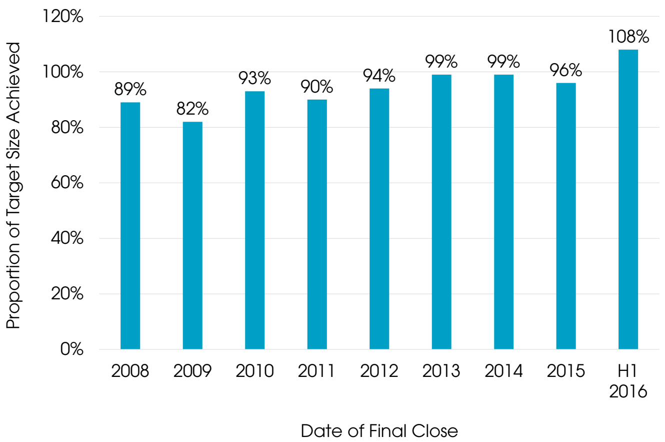
Source: Preqin Infrastructure Online

Fig. 2: Unlisted Infrastructure Fundraising by Primary Geographic Focus, 2015 - H1 2016



Source: Preqin Infrastructure Online

Fig. 3. Average Proportion of Target Size Achieved by Unlisted Infrastructure Funds, 2008 - H1 2016



Source: Preqin Infrastructure Online

Fig. 4: Five Largest Unlisted Infrastructure Funds Closed in Q2 2016

Fund	Firm	Fund Size (mn)	Primary Geographic Focus
Carlyle Power Partners II	Carlyle Group	1,500 USD	North America
Meridiam Infrastructure Europe III	Meridiam	1,300 EUR	Europe
SMA 5	Macquarie Infrastructure Debt Investment Solutions	500 EUR	UK
Meridiam Transition Fund	Meridiam	350 EUR	France
Star America Infrastructure Partners	Star America Infrastructure Partners	300 USD	North America

Source: Preqin Infrastructure Online

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Centre Lane Partners IV

Investments in special situations in the lower middle market

2016

€900m

TRILANTIC CAPITAL PARTNERS EUROPE

Trilantic V Europe

Pan-European mid-market private equity

2015

€1.25b

F2i

Fondi Italiani per le Infrastrutture II

Value infrastructure in Italy

2015

$406m

NEW WATER CAPITAL

New Water Capital Partners

Special situations investments in the lower middle market

2015

Capstone Partners

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Securities placed through CSP Securities, LP
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Institutional Investors in Infrastructure

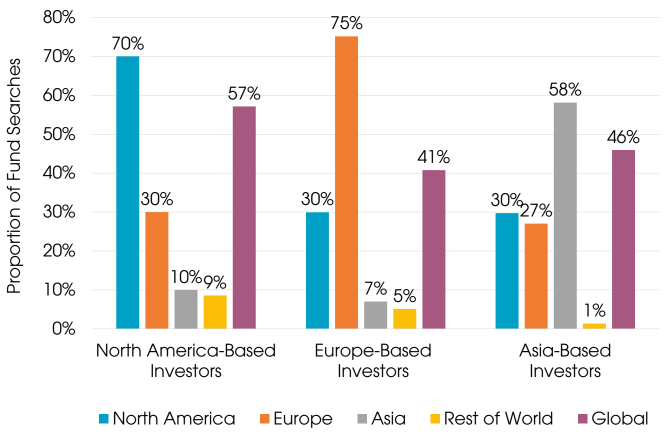
Infrastructure investors will predominantly target domestic investments over the next 12 months, although large proportions will also pursue globally diversified infrastructure investments (Fig. 1).

Investors across the globe will continue to use unlisted funds as their preferred route into the infrastructure asset class (Fig. 2). A larger proportion of infrastructure investors based in the more developed markets of North America and Europe are seeking unlisted funds, as targeted by 88% and 82% of North America- and Europe-based investors respectively, compared to 76% of investors based in Asia. Approximately a third of active institutions globally will target direct investment in assets over the coming year, while listed fund investment is the least preferred investment method across all regions.

Infrastructure investors are prepared to commit more capital to unlisted vehicles in the next 12 months than they were one year ago; 58% of active infrastructure investors will seek to commit more than $100mn to unlisted vehicles in the next 12 months, compared with 42% in Q2 2015 (Fig. 3).

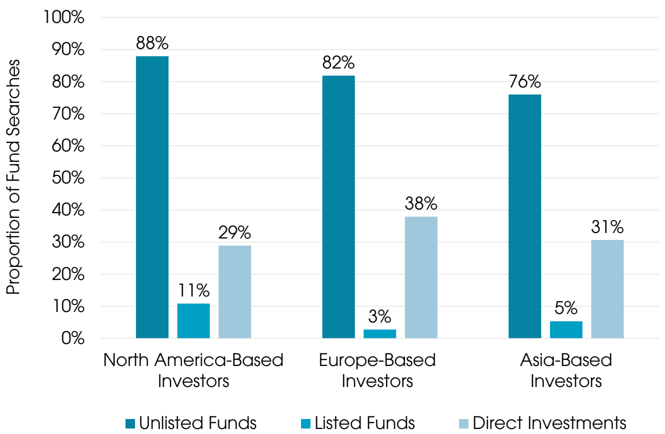
Furthermore, they are likely to commit this capital to multiple vehicles; 82% of active investors will make more than one fund commitment in the coming year, including 14% seeking to invest in 10 funds or more. Comparatively, in Q2 2015, 68% of investors were targeting more than one fund commitment and none were planning to invest in 10 or more funds in the coming year.

Fig. 1: Regions Targeted by Infrastructure Investors in the Next 12 Months by Investor Location



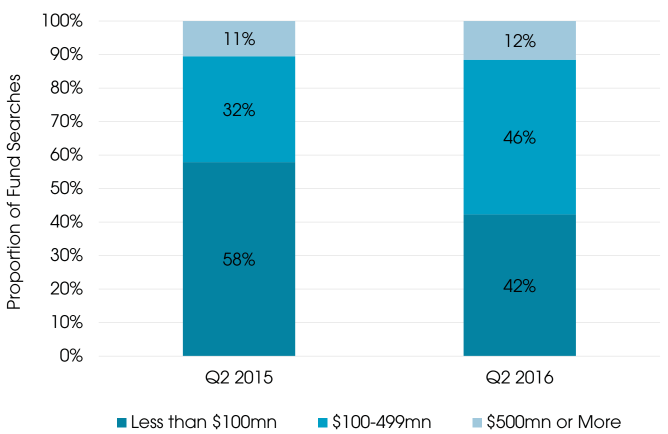
Source: Preqin Infrastructure Online

Fig. 2: Preferred Route to Market of Infrastructure Investors in the Next 12 Months by Investor Location



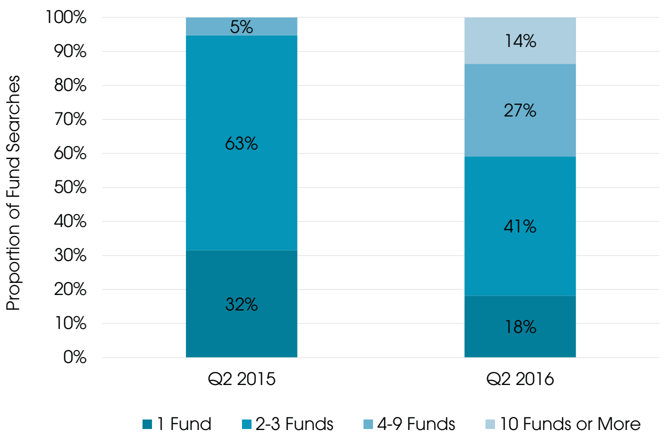
Source: Preqin Infrastructure Online

Fig. 3: Amount of Capital Infrastructure Investors Plan to Commit to Unlisted Infrastructure Funds in the Next 12 Months, Q2 2015 vs. Q2 2016



Source: Preqin Infrastructure Online

Fig. 4: Number of Unlisted Funds Infrastructure Investors Plan to Commit to in the Next 12 Months, Q2 2015 vs. Q2 2016



Source: Preqin Infrastructure Online

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DC Placement Advisors is a leading European placement agent dedicated to supporting alternative fund managers in raising capital from top-tier institutional investors. Founded in 2008 and with offices in Germany, United Kingdom, Switzerland and Australia, the company is perfectly positioned to raise institutional capital on an international scale across alternative asset classes spanning from infrastructure, private equity and renewable energy to real estate and private debt. A thorough understanding of the institutional mindset, our vast industry recognition and established, long-term relationships with key institutional investors have given DC Placement Advisors a distinctive advantage in the rapid closure of new assignments. We are renowned for our outstanding investor mapping capabilities and market insight, with a streamlined business approach and a focus on execution efficiency.

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- **Leading European presence**
  In-depth knowledge of the relevant investor base and direct investor access
- **Passion to deliver**
  Highly committed multilingual team with longstanding infrastructure fundraising expertise

Download the data pack at: www.preqin.com/quarterlyupdate

Deals

Q2 2016 saw a reduction in both the number and estimated aggregate deal value of completed infrastructure transactions compared to Q1: 225 infrastructure deals were completed for an estimated* $97bn, representing a 51% and 67% decline in the number and aggregate value of deals respectively (Fig. 1). The average deal size in Q2 2016 was $430mn, a reduction on the $474mn recorded in Q1 (Fig. 2).

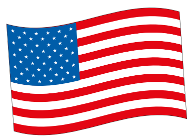
Europe continued to see the largest number of deals in the quarter, with 83 completed transactions for a reported aggregate deal value of $16.8bn. Although fewer deals were completed in Asia (57), the region has a significantly larger reported aggregate deal value ($36.2bn) as a result of the $13bn acquisition of Tuban Refinery Plant in Indonesia by PT Pertamina and Rosneft.

As in previous years, the largest proportion (35%) of transactions completed in Q2 2016 took place in the renewable energy sector, although this a significant decline on the 56% of transactions renewables represented in Q1. Another sector that saw significant activity was transport, which represented a quarter of deals, a significantly larger proportion than in Q1 (13%). While secondary stage assets represented the largest proportion (41%) of transactions in Q2, deals at this project stage have declined from 67% in Q1 (Fig. 5). Conversely, deals at both greenfield and brownfield stages increased proportionally to represent 39% and 20% of deals.

The largest proportion (46%) of deals completed in Q2 were under $100mn, although nearly a quarter of transactions completed for over $500mn (Fig. 6). Aside from the aforementioned Tuban Refinery Plant deal, notable deals include the $5bn purchase of Cilacap Refinery Plant by PT Pertamina and Saudi Aramco, as well as the £2.4bn purchase of the York Potash Project by HOCHTIEF Concessions and J. Murphy & Sons Limited (Fig. 7).

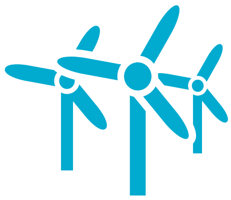
Key Deals Facts: Q2 2016

$97bn
Estimated aggregate value of completed infrastructure deals.



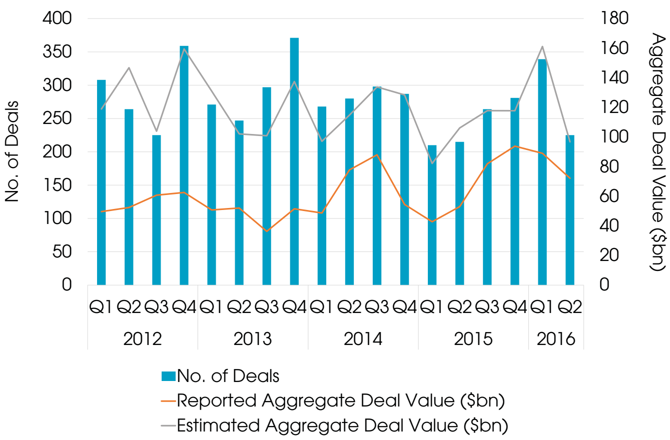
46
The US saw the highest number of completed infrastructure deals of any single country.

$13bn
Value of the largest completed infrastructure deal, the agreement by Pertamina and Rosneft to develop the Tuban Refinery Plant in Indonesia.



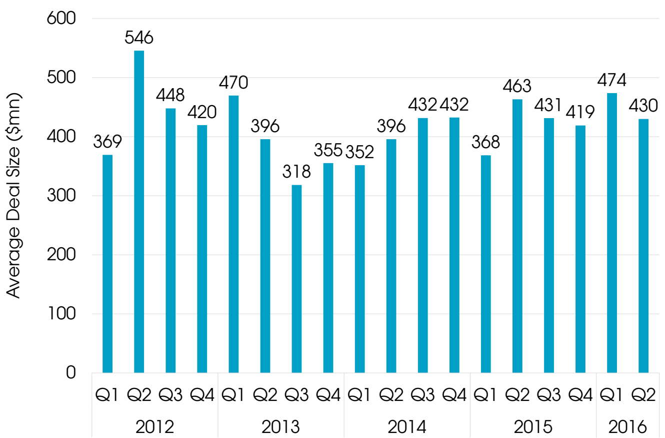
77
The largest number of completed infrastructure deals took place in the renewable energy sector.

Fig. 1: Quarterly Number and Aggregate Value of Infrastructure Deals Completed Globally, Q1 2012 - Q2 2016



Source: Preqin Infrastructure Online

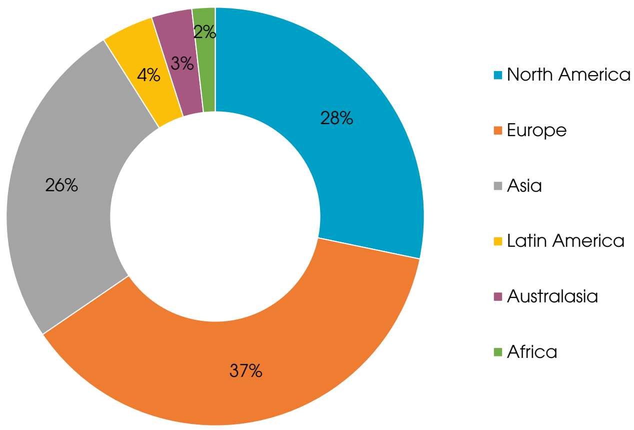
Fig. 2: Average Quarterly Infrastructure Deal Size, Q1 2012 - Q2 2016



Source: Preqin Infrastructure Online

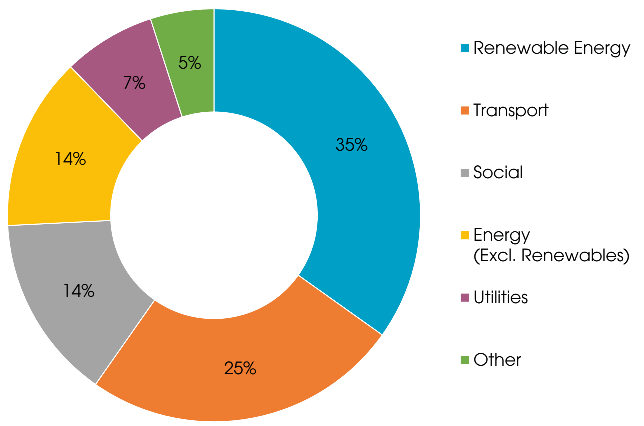
*Value is based on reported deal values and estimates where a deal size is not disclosed.

Fig. 3: Completed Infrastructure Deals in Q2 2016 by Region



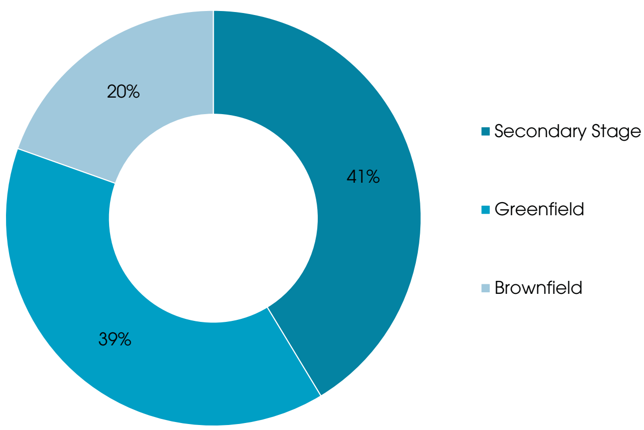
Source: Preqin Infrastructure Online

Fig. 4: Completed Infrastructure Deals in Q2 2016 by Industry



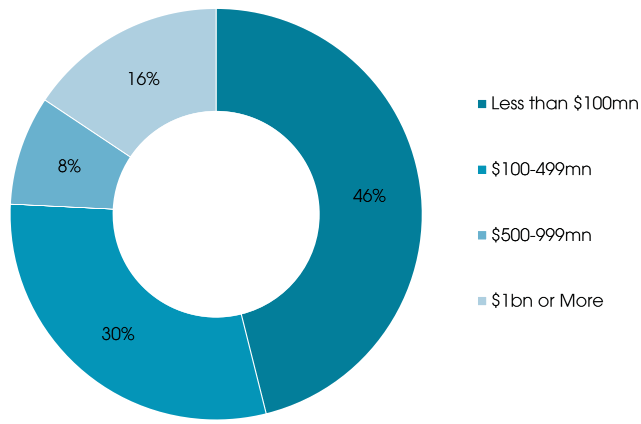
Source: Preqin Infrastructure Online

Fig. 5: Completed Infrastructure Deals in Q2 2016 by Project Stage



Source: Preqin Infrastructure Online

Fig. 6: Completed Infrastructure Deals in Q2 2016 by Size



Source: Preqin Infrastructure Online

Fig. 7: Largest Infrastructure Deals Completed in Q2 2016

Asset	Location	Primary Industry	Investor(s)	Deal Size (mn)	Stake (%)	Deal Date
Tuban Refinery Plant	Indonesia	Natural Resources Refineries	PT Pertamina, Rosneft	13,000 USD	100	Apr-16
Cilacap Refinery Plant	Indonesia	Natural Resources Refineries	PT Pertamina, Saudi Aramco	5,000 USD	100	May-16
York Potash Project	UK	Tunnels	HOCHTIEF Concessions, J. Murphy & Sons Limited	2,400 GBP	100	Jun-16
Kunming Rail Transit (Line 5) PPP	China	Railroads	China Railway Construction Corporation	3,250 USD	100	May-16
Batang Power Plant	Indonesia	Natural Resources	-	3,200 USD	-	Apr-16
Rome-Latina Motorway PPP	Italy	Roads	Gruppo Fininc, Sacyr Vallehermoso	2,800 EUR	100	Jun-16
Guangdong Zhenrong Energy Refinery	Myanmar	Natural Resources Refineries	Guangdong Zhenrong Energy, Myanmar Economic Holdings, Myanmar Petrochemical, Yangon Engineering Group	3,000 USD	-	Apr-16
South Texas-Tuxpan Underwater Gas Pipeline PPP	Mexico	Natural Resources Pipelines	Sempra Energy, TransCanada Corporation	2,100 USD	100	Jun-16
Wuzhong-Zhongwei Rail PPP	China	Railroads	China Railway Construction Corporation	2,070 USD	100	May-16
Lloydminster Midstream Assets	US	Natural Resources	Cheung Kong Infrastructure Holdings, Power Assets Holdings	1,700 USD	65	Apr-16

Source: Preqin Infrastructure Online

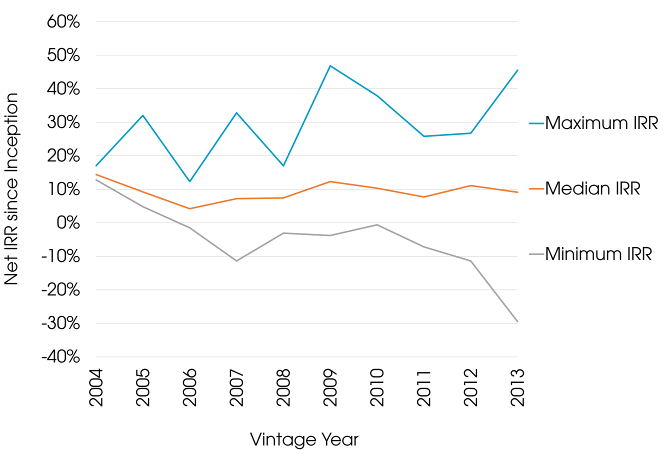
Fund Performance and Dry Powder

The most recent performance data on Preqin's **Infrastructure Online** shows that the median net IRR for all vintages is approximately 10%, which is typical of an investment favoured for its relatively stable returns (Fig. 1). Furthermore, as shown in Fig. 2, infrastructure returns are among some of the least volatile of all private capital strategies.

The PrEQIn Infrastructure Index currently stands at 180.2 points, consistently outperforming the PrEQIn All Private Equity Index since its inception in 2007, as well as the S&P 500 TR Index (Fig. 3). Indicative of infrastructure's low correlation to other asset classes, the PrEQIn Infrastructure Index rose 2% in the three months from June 2015, compared to 1% for All Private Equity and -6% for the S&P 500 TR.

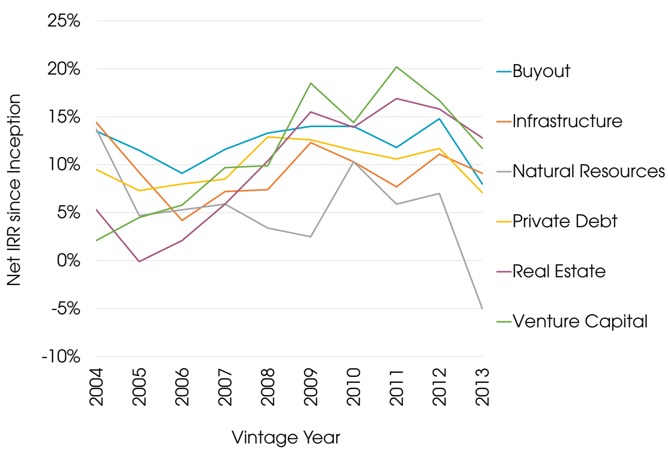
Mega funds represent a growing proportion of total unlisted infrastructure dry powder, increasing from 38% at the end of 2015 to 48% at the end of Q2 2016 (Fig. 4). Funds focused on North America represent over half (53%) of available capital, while Europe-, Asia- and Rest of World-focused dry powder account for 25%, 13% and 9% respectively.

Fig. 1: Maximum, Median and Minimum Net IRRs for Unlisted Infrastructure Funds by Vintage Year



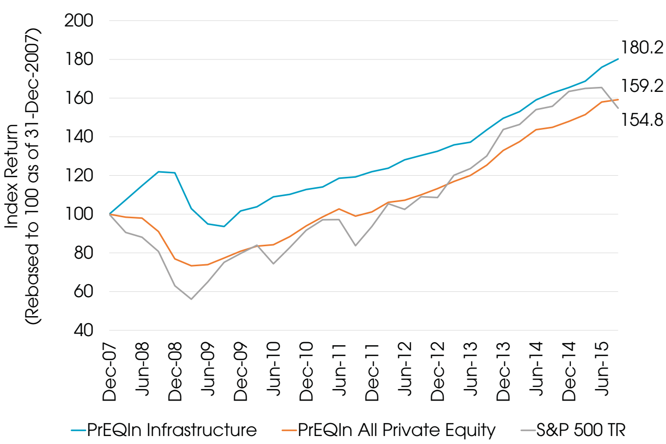
Source: Preqin Infrastructure Online

Fig. 2: Median Net IRRs by Vintage Year and Strategy



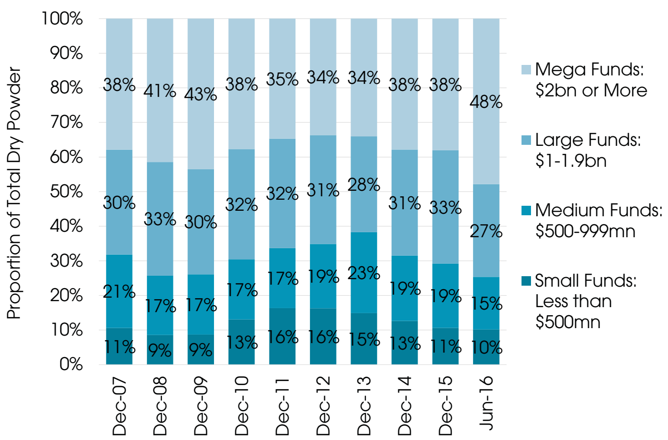
Source: Preqin Infrastructure Online

Fig. 3: PrEQIn Index: Infrastructure vs. All Private Equity Strategies and S&P 500 TR



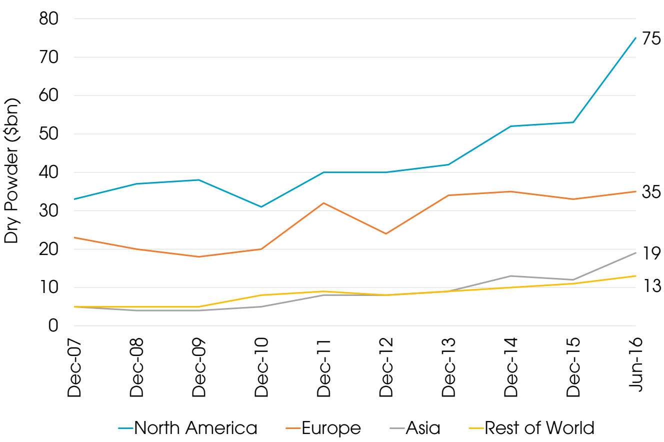
Source: Preqin Infrastructure Online

Fig. 4: Unlisted Infrastructure Dry Powder by Fund Size, December 2007 - June 2016



Source: Preqin Infrastructure Online

Fig. 5: Unlisted Infrastructure Dry Powder by Fund Primary Geographic Focus, December 2007 - June 2016



Source: Preqin Infrastructure Online

The Q2 2016 Preqin Quarterly Update: Infrastructure

alternative assets. intelligent data.

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With global coverage and detailed information on all aspects of the infrastructure asset class, Preqin's industry-leading **Infrastructure Online** service keeps you up-to-date on all the latest developments in the infrastructure universe.

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Find the most relevant investors, with access to detailed profiles for over 2,000 institutional investors actively investing in unlisted infrastructure, including insurance companies, pension funds, family offices, foundations, wealth managers, endowment plans, banks and more.

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Find active fund managers in infrastructure

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Analyze the latest infrastructure fundraising activity

See which funds are currently on the road raising an infrastructure fund and which will be coming to market soon. Analyze fundraising over time by fund strategy, industry focus and location.

Benchmark performance

Identify which fund managers have the best track records with performance benchmarks for infrastructure funds, and view performance details for over 220 individual named funds.

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