

# Top trends in 2019

## Infrastructure Outlook



### Infrastructure to be resilient in the face of market volatility

2 | Macroeconomic overview

3 | Top three European market trends

6 | Top three US market trends

8 | Private infrastructure markets

# Top infrastructure trends for 2019

This paper focuses on three key themes in Europe and North America to help investors navigate portfolio allocation decisions. Merchant power risk is not new to US investors, and now in Europe it is increasingly becoming a prerequisite in order to participate in the wave of energy investment opportunities. We expect the flurry of data infrastructure investments seen in 2018 to continue but we highlight some concerns. Politics will continue to dominate the headlines presenting both risks and opportunities. Broader private infrastructure debt and equity markets appear healthy, although with public markets suffering a correction in 4Q18, we examine whether private markets will continue to be unaffected.

## Macroeconomic overview

At the start of 2018 we were broadly optimistic about the outlook, but aware of the risks. As we look back at 2018 some of those have materialized, while new risks have emerged. Notably we saw a significant correction in equity markets with the MSCI global falling by 13% in 4Q18. The drop reflects nervousness on the part of investors although the index has recovered some of those losses and was up 8% in January 2019. A stock market re-pricing from elevated levels is healthy if it stops excessive valuations, but more worrying if it undermines sentiment and spills over to the broader economy. The return of volatility in 2018 is a further illustration of investor anxiety around how markets will respond to rising interest rates and an uncertain political environment.

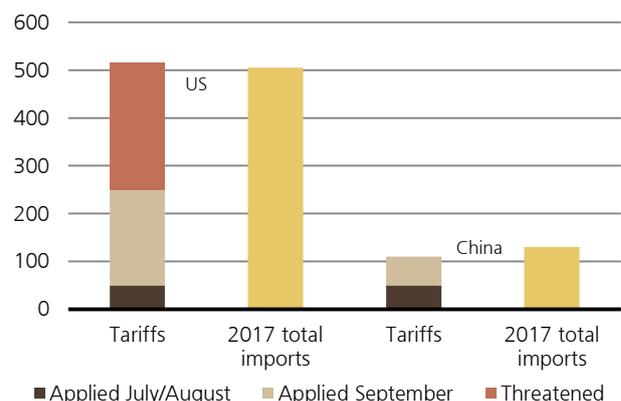
At the current juncture we can cite a number of other risks. Donald Trump's trade war with China has escalated steadily and tariffs have been ratcheted up on both sides; there is nervousness over emerging markets and crises in several. Inflation is also a risk given tight labor markets in many countries and firming wage growth, now above 3% in the US for the first time since 2009. On the positive side, and showing that the Trump administration can do deals if the terms are right, a successor to NAFTA has been agreed, subject to ratification, in the form of the United States-Mexico-Canada Agreement (USMCA). The recent market volatility has also increased the urgency for China and the US to come to terms. Actual implementation and enforceability of a trade agreement will remain uncertain, regardless of the outcome of the current negotiations.

**Figure 1: Equity market correction and return of volatility** (Stock Index levels, USD (left); Volatility Index (right))



Source: Thomson Reuters Datastream, January 2019

**Figure 2: US-Chinese mutual goods tariffs** (annual, USD billions)



Source: UBS Asset Management, Real Estate & Private Markets (REPM), November 2018

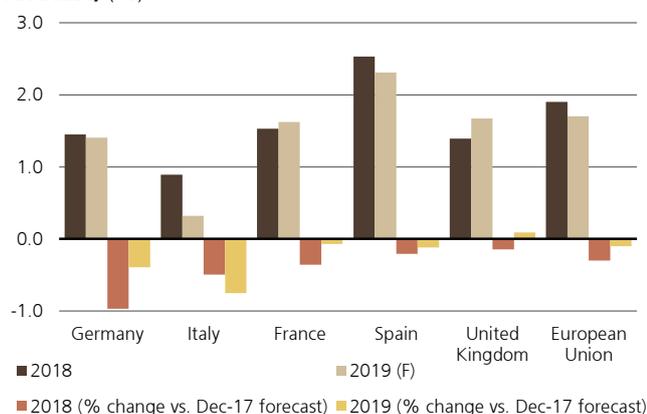
Moving into 2019 we expect growth to slow in the advanced economies. We also expect the fiscal boost the US received in 2018 to fade while the Eurozone, already slowing, to face capacity constraints in some countries due to low unemployment rates. In general economic expansions do not die of old age, but longer expansions can encourage risk taking. Moreover, as we exit an unprecedented period of new and unconventional monetary policies there is scope for error by central banks. Even with supportive government policies, navigating these waters successfully will prove tricky. Unhelpful government policies could make the challenge harder still.

## Top three European market trends

### The impact of politics on the European economy

Europe has stuttered in 2H 2018, registering 0.3% QoQ growth in 3Q and 4Q, the slowest in five years and down from 0.5% QoQ in 2Q. This time last year, Oxford economics forecast growth of 2.2% and 1.8%, respectively, for 2018 and 2019. Reported GDP growth for 2018 was lower at 1.9% but the overall EU GDP growth for 2019 is relatively stable at 1.7%, in line with the 20-year EU growth rate.

**Figure 3: GDP growth revised downwards from 2017 forecast, (%)**



Source: Oxford Economics, January 2019

Figure 3 shows the actual and forecast GDP for the top five European infrastructure markets, and compares performance against last year's forecast from Oxford Economics. Italy and Germany experienced the biggest underperformance of circa 50bps and 100bps, respectively. Both markets were ultimately negatively impacted by politics. In Italy, government bond yields spiked following the entry into power of a populist coalition which had a knock-on effect on the economy.

Meanwhile, the German economy underperformed, in part due to the global impact of US/China tariffs on the industrial sector. The impact of the *gilets jaunes* protests may also have contributed to the French economy reporting lower growth than forecast.

We expect politics to continue to take its toll on the European infrastructure market this year. In the UK, the myriad of possible outcomes from Brexit renders the forecast for 2019 and beyond almost meaningless. Mr. Draghi's eight-year term at the helm of the European Central Bank (ECB) is coming to an end in 4Q19. His successor could reshape the ECB's strategy of keeping rates at record lows while continuing to re-purchase maturing bonds. It is far more likely however, that Draghi's successor will continue to adopt an ultra-loose monetary policy.

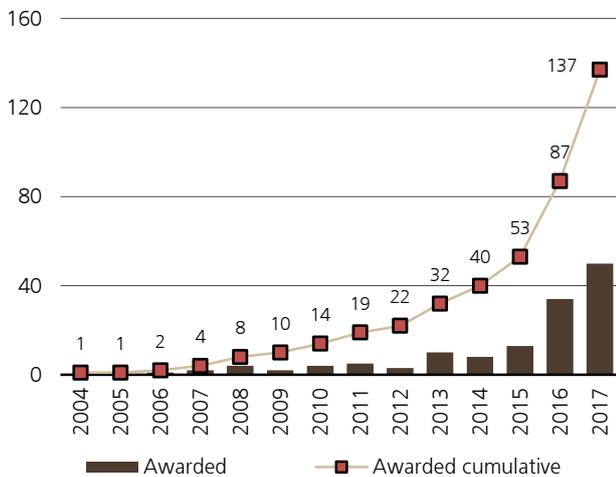
While politics continues to present additional risks for investors, it is important to remember that GDP grew by 1.9% in 2018 and is forecast to increase by 1.7% in 2019. This is well above the 10-year average of 0.9%. While traffic levels for European airports and toll roads have slowed from 2017 levels, Moody's forecast a respectable 2-4% growth for European toll roads and a 3-5% increase for European airports. Overall, in our view, GDP-linked European assets continue to be attractive albeit with lower growth expectations than anticipated 12-18 months ago.

Changes in the political framework can bring uncertainty for infrastructure assets, especially as private ownership of essential assets comes under increasing pressure from opposition parties. In the UK, we've seen less investor-friendly regulatory returns for both water and electricity, partly in response to the opposition government's radical (and popular) plan to (re-)nationalize key infrastructure. Investors will need to assess political risk more closely than ever and manage exposure to regulated assets where political risk is perceived to be high. One attractive strategy could be to reallocate to the unregulated utilities sector which is benefitting from rising power prices (see below).

### Merchant Europe: the end of a subsidy era

European financiers have been very active in the renewables market with around EUR 300bn lent to the sector over the past 10 years. However, as the era of renewables subsidies comes to an end (see Figure 4), project sponsors worry that their support for the sector will wane as regulatory supports disappear. More than 10GW of renewables capacity has been auctioned in the Spanish market, however, much of this will not be built ahead of the January 2020 deadline as sponsors struggle to finance projects on their bid metrics. The Spanish market will provide an important case study for the rest of Europe. Aurora Energy forecast a pipeline of 60GW of renewables across Northwest Europe by 2030, much of which will be subsidy free.

**Figure 4: Global auctioned renewables capacity (2004-2017, GW\*)**

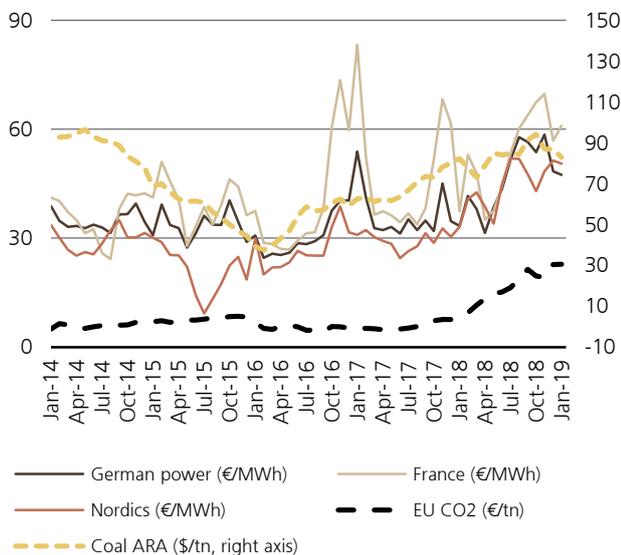


Source: Bloomberg New Energy Finance  
 \* Excludes 60.8TWh of renewable electricity auctioned in Chile between 2006 and 2017 as it was not allocated on a GW basis

Prices across the major European markets increased in 2017/2018, largely due to rising fuel costs and higher carbon prices. The latter was driven by four structural reforms to the EU Emission Trading Scheme (ETS) introduced in 1Q18 to reduce the over-supply of allowances in the market. This resulted in prices increasing by around five times, over an 18-month period to December 2018.

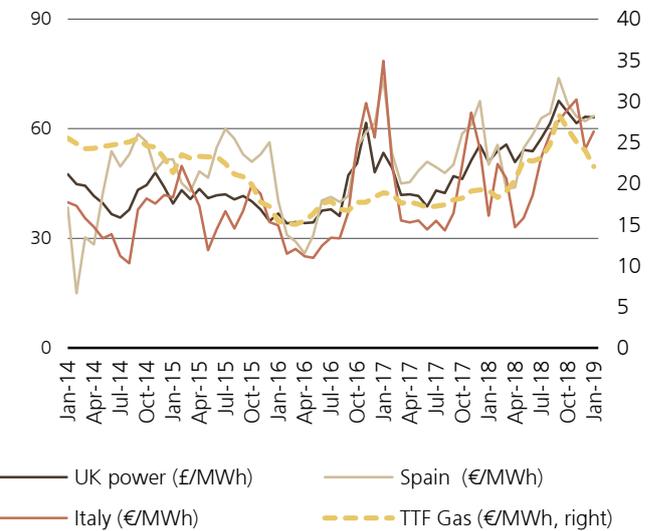
The trajectory of future prices is uncertain as there are a number of factors at play. A price above EUR 30/tonne could cause coal plants to close earlier than scheduled, making Europe's industry less competitive globally. Additionally, the early closure of coal plants could cause an oversupply of carbon allowances as the coal industry is amongst the largest purchasers of certificates, causing prices to fall. Coal intensive countries such as Germany are most affected, further supporting the thesis that governments could intervene if prices continue to increase at the current rate. Conversely, advocates of ETS argue that a high price is positive and essential to force the closure of coal plants. CO<sub>2</sub> emissions rose in 2017 for the first time in four years, highlighting the need for action. Figures 5 and 6 illustrate that rising carbon prices are the key driver of power price increases in carbon-led markets, whereas in gas-led markets the gas price is the key variable.

**Figure 5: Rising carbon prices pushing coal-led markets higher**



Source: Bloomberg, January 2019

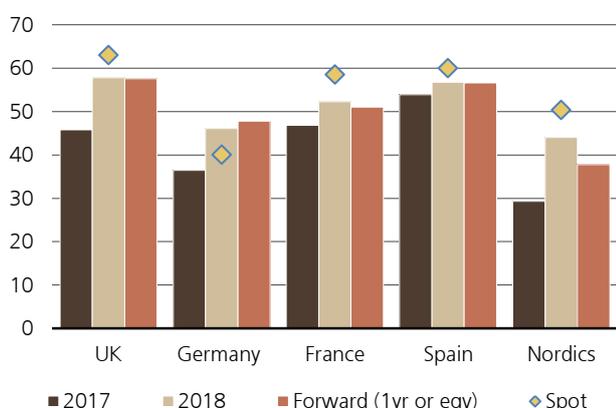
**Figure 6: Rising gas prices supporting power prices in gas-led markets**



Across the main European energy markets, power prices in 2018 were higher than in 2017. Excluding Germany, spot prices are higher than 2018 averages but markets expect prices to fall in 2019 as shown in Figure 7. The forecast prices are still well above the levels seen in 2016 and 2017 which is a positive for unregulated utilities and projects exposed to merchant power prices.

**Figure 7: Power price projections**

(UK, GBP/MWh; EUR/MWh for rest)



Source: Bloomberg, January 2019

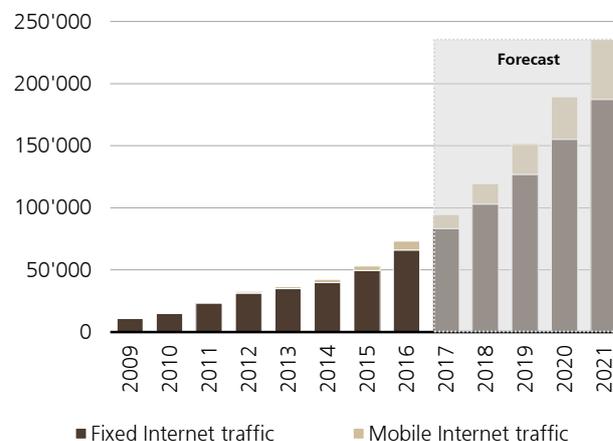
These are difficult dynamics for an infrastructure investor to assess. More conservative investors who were attracted by the regulated tariffs provided by renewables may simply disappear from the market. Others will seek to agree corporate power purchase agreements (PPAs) to mitigate the price risk although the availability of such agreements is likely to be limited. In order for this ambitious pipeline of auction-based projects to be delivered, it seems that both equity and debt investors will need to get comfortable with taking an element of price risk.

**The growth of data**

2018 was a record year of activity for infrastructure investment into telecommunication infrastructure with around USD 11bn of equity investment globally. While clearly the growth of data is a worldwide phenomenon, more than 80% of the activity relates to European transactions. The majority of these investments were in data infrastructure, i.e. fiber and data centers. These sectors have been boosted by the proliferation of high definition on-demand video, gaming, cloud services, mobile data usage and IT outsourcing, creating a surge in both fixed and mobile internet traffic. This growth is forecast to increase exponentially (see Figure 8).

**Figure 8: Exponential growth in internet traffic**

(Petabytes/month)

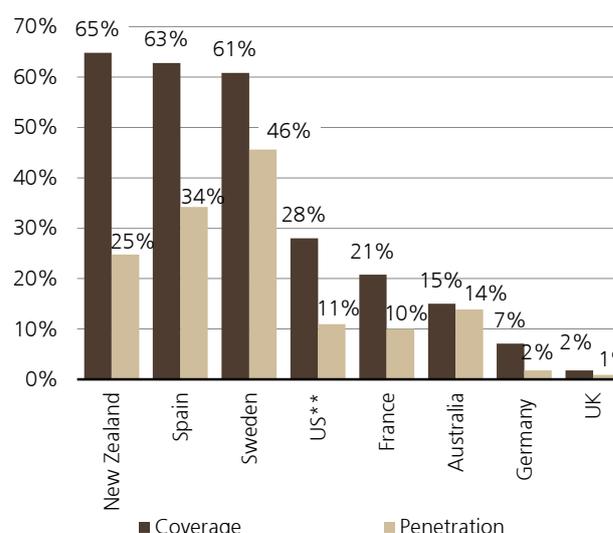


Source: Cisco Global Cloud Index, 2016-21

Additionally, the telecommunications incumbents have limited capacity to invest across the spectrum and are prioritizing opportunities in 5G, the next mobile generation – and in many cases, are selling non-core assets to help fund this. This trend also creates further opportunities for infrastructure investors. In terms of technology, there is a clear political push for fiber as legacy copper last-mile infrastructure is unable to facilitate the widespread transmission of new technologies such as HD on-demand video. As shown in Figure 9, there is still patchy overall coverage of fiber which creates opportunities for infrastructure investors.

**Figure 9: Take-up varies by country**

(Coverage and penetration rates\*, %)



Source: NERA, Telecommunications Infrastructure International Comparison, March 2018;

\* Penetration rate is fiber subscriptions/ total homes in country.

\*\* US reported data from Fiber Broadband Association but using different methodology

Despite only having 2-3% coverage in the UK, the government recently announced plans to provide "full fiber" by 2033, unsurprisingly creating a gold rush in the sector. The experience of actual take-up differs significantly by country, something investors should be aware of when considering an investment into the sector. The difference in penetration rates is heavily impacted by price competition and the speed of the existing connection. It is therefore difficult to provide a uniform forecast for take-up rates.

Looking at some of the macro trends, it is not difficult to justify the level of investment and high valuations, but it is worth noting that many of these businesses take on significant risks around price, penetration rates and competition, especially in a sector that has a long history of overinvestment and bankruptcies. An in-depth analysis of how investors can position themselves in this market is set out in our report on [data infrastructure](#).

## Top three US market trends

### Trade war and economic uncertainty

Investors across all asset classes are inevitably fixated on the trade tensions between the US and China. Headlines on trade negotiations seem to fluctuate between positive to negative on a daily basis. Even an agreement between the two countries will still result in years of uncertainty, as enforceability and trust are still lacking. Investors should nevertheless have some understanding of the potential impact. In our view, the worst case scenario for an all-out trade war is weak economic growth and above average cost inflation (i.e. stagflation). Ironically, both of those "negative" economic outcomes from a trade war are potentially positive for infrastructure investments:

- The defensive nature of infrastructure assets means that they tend to outperform more cyclical sectors on a relative basis when the broader economy is weak
- Real assets tend to provide a hedge against inflation, since replacement cost rises with inflation. Whether actual cash flows are protected against inflation depends on the revenue mechanism of a specific asset.

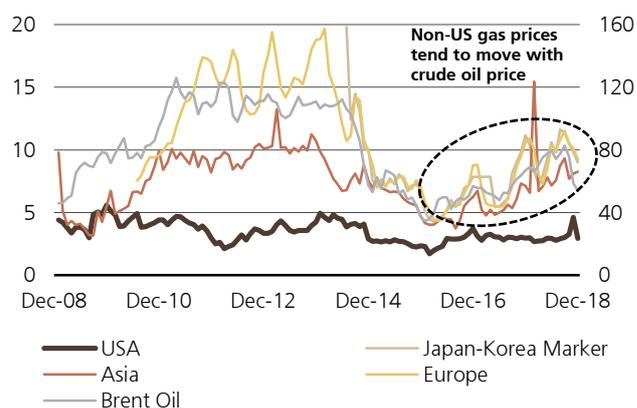
The impact of slower economic growth on a sub-sector level is a bit more nuanced, and could lead to unexpected outcomes. For example, oil price tends to decline in a weak economy, as the commodity is generally highly cyclical. But that would also limit the production of associated gas from US shale oil wells, which would actually be incrementally positive for US natural gas price, and thus US power prices (depending on jurisdiction and location). This would offset some of the negative impact that a weaker economy has on electricity demand. Essentially, US power assets with merchant exposure now have a natural hedging mechanism that did not exist before the development of shale oil.

On the other hand, lower commodity price and shale production growth are slightly negative for midstream projects. Counterparties within the exploration and production (E&P) sector will come under more financial pressure (increasing credit risk), while slower volume growth takes away upside optionality for brownfield expansions or increase the revenue risk of assets that lack volume commitments.

We have already seen some signs of this playing out, with the recent oil price weakness causing a decline in the number of operating oil rigs in the US (a proxy for shale oil activity). Schlumberger, the largest oil services company in the world, expects US onshore E&P capital investments in 2019 to be flat or slightly down from last year, which limits the production growth of shale oil and gas. However, investors can take comfort in the fact that the US shale industry has become much more resilient since the oil price downturn in 2014 with industry consolidation, improved cost efficiency, and capital discipline. The US shale industry's competitive advantage would limit significant downside to its production volumes and financial health even in a downturn.

Finally, recent economic uncertainties and weakness in oil price has narrowed the gap between US and international natural gas prices (as international prices are more linked to oil prices). This has in turn had an impact on the attractiveness of US liquefied natural gas (LNG). Through the cycle, natural gas price in the US has actually been relatively stable and consistently much cheaper than international gas prices (see Figure 10), despite occasional short term volatility. In 2019, Asia LNG price averaged ~USD 8/MMBtu, making US LNG exports to Asia still economic. Previously, we estimated that US exports to Asia still makes sense at USD 8-9.5/MMBtu<sup>1</sup>. LNG has also become an important bargaining chip for trade negotiations between the US and China, as gas becomes a larger part of China's energy mix in the next decade. The truth is, whether China imports directly from the US or not is irrelevant for an increasingly globalized commodity like LNG. As long as China is importing significantly more LNG from *somewhere*, it will support LNG markets *everywhere*.

**Figure 10: Global natural gas prices (USD/MMBtu) vs. oil price (USD/bbl)**



Sources: Bloomberg; Thomson Reuters Datastream, January 2019

<sup>1</sup> Refer to page 15 of our report "[Investing in US energy infrastructure](#)" Page 6 of 12

The above analysis across various subsectors is premised on a hypothetical scenario that economic growth will weaken further due to the ongoing trade war. Obviously, if this does not play out, the status quo remains. Ultimately, infrastructure assets in the US energy sector enjoy structural tailwinds (e.g. shale and Chinese gas demand), which should continue to support investment opportunities. At a high level, economic uncertainty is relatively favorable towards infrastructure investments. However, it is also important for infrastructure investors to understand that different types of assets may have different exposures to the economic cycle, and so diversification remains important.

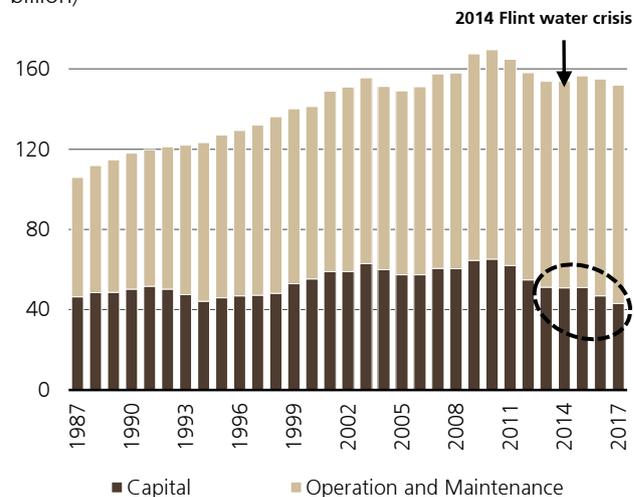
### Infrastructure plans under a divided congress

Domestic US politics are just as volatile as international geopolitics, especially with a polarizing President and a divided Congress (Republicans controlling the Senate and Democrats controlling the House). After the midterm elections last November, there has been some optimism that a federal infrastructure plan will finally gain more traction given that infrastructure is one of the few areas that tends to receive bipartisan support. The US infrastructure investment universe is currently heavily skewed towards the energy sector. A new federal infrastructure bill can potentially lead to further deregulation and privatization in other sectors, broadening the investment universe for private infrastructure investors. Since the recent corporate tax cuts have only deepened the federal budget deficit, it makes economic sense to attract more private investor funding into infrastructure markets.

However, we remain somewhat skeptical. Without looking back too far, investors need to remember that even under a Republican controlled Congress between 2016 and 2018, President Trump's USD1.5 tn infrastructure plan did not go anywhere. History has shown that politicians may like to complain about poor infrastructure, but few actually take concrete action from a policy point of view. When actual dollars are on the line, attention is often prioritized towards taxes, healthcare, defense, social security and other issues that have more tangible and immediate impact.

One prime example of the glacial pace of public infrastructure policy is the water utility sector after the Flint water crisis in 2014, where 100,000 residents were exposed to lead contaminated water in Michigan. Although the uproar from the scandal should have been a catalyst for change, public capital spending in the water sector has actually fallen since 2014 (see Figure 11). Instead, there has been an increase in operation and maintenance expense, a sign that the industry is simply making smaller scale upgrades rather than committing larger investments to overhaul the sector. Opportunities for private investors were also limited. For example, there were only two US water infrastructure investments in 2018 according to Inframation versus 200+ US energy infrastructure investments during the same year.

**Figure 11: Public spending on water infrastructure (USD billion)**



Source: Congressional Budget Office, October 2018

In 2018, the CEO of American Water, a water utility, said, "from a water standpoint, what we've seen in the past 20 years is no federal funds, there's no way to pay for it, systems coming to end of life, infrastructure challenges, water supply challenges, and resiliency and additional water supply challenges from climate variability issues." In all fairness, the government did make some progress in 2019 when President Trump and congress passed the bipartisan Water Infrastructure Improvement Act. But let us not forget that the Flint water crisis was almost five years ago.

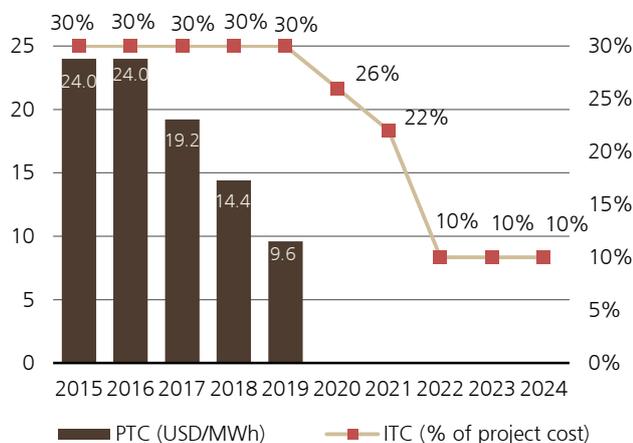
This is just a microcosm of the struggles that many non-energy infrastructure sectors are facing. In the next few years, regardless of where the current push for a new infrastructure bill shapes up, most infrastructure investment opportunities will likely still remain in the energy sector, which has traditionally been more welcoming to private investments.

The main takeaway is that government infrastructure policies tend to move slowly, so infrastructure investors should not count on any drastic changes in the next few years, despite bipartisan support.

### Renewables: Strong outlook despite falling subsidies

Following the global trend of falling renewable subsidies as highlighted in the previous section on Europe, Federal subsidies in the US are also being phased out. Production Tax Credits (PTC) will fall to zero after 2019, while Investment Tax Credits (ITC) will begin to decline after 2019 (See Figure 12). Although the sunset of subsidies could be a headwind for the sector, the end result may not be as dramatic, given the existing Safe Harbor rules. This will allow developers to defer project commissioning dates and still enjoy the tax credits, as long as they make a small amount of investment up front.

**Figure 12: US Renewables Production Tax Credit (PTC) and Investment Tax Credit (ITC)**



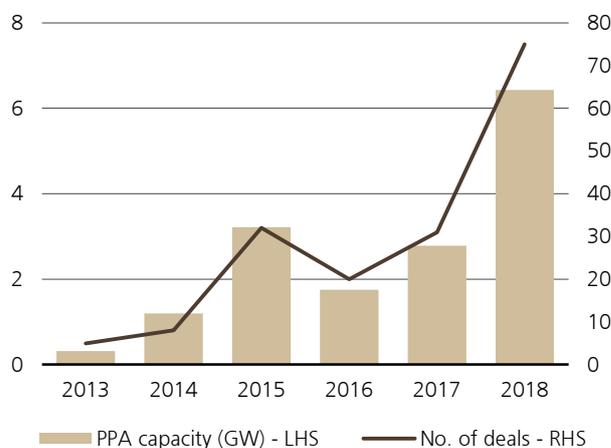
Sources: Department of Energy, NextEra Energy, February 2018

If anything, 2019 and 2020 should see a rush in project development (especially for wind), as owners try to capture the higher 2015 and 2016 PTCs after exercising the Safe Harbor rule's 4-year time limit. There will also be an incentive to safe harbor the current 30% ITC before it falls in 2020, meaning we could potentially see a large number of new project starts (especially for solar); although these projects will unlikely to be completed until 2023, as developers want to wait for project costs to fall further while retroactively capturing higher subsidies. Broadly, the long term outlook for the sector remains positive given continued technological improvements and strong demand for clean energy.

Rising demand for renewables from the private sector through corporate power purchase agreements (PPAs) also helps offset the headwinds from falling subsidies. Last year, over 6GW of long term contracts were signed with corporates (see Figure 13), amounting to a record year in terms of amount of MW signed, number of contracts signed, as well as the number of unique customers. The Business Renewables Center, a non-profit advocacy group for corporate PPAs, reported that corporate membership in their organization increased ~40% in 2018, a potential leading indicator that we could see more corporate buyers of renewable energy. The outlook for corporate PPAs in 2019 remains strong.

Finally, although Federal support for renewables under the current administration remains weak, state level support is robust. California has instituted a 100% renewables target for 2045. In the mid-term elections last November, Nevada's citizens voted to increase its Renewable Portfolio Standards (RPS) target to 50% by 2030. In addition, the new governors of states such as Colorado, Connecticut, Illinois and Maine and Oregon all support targeting 100% renewables longer term.

**Figure 13: US corporate renewable PPAs contracted**



Source: Business Renewables Center, January 2019

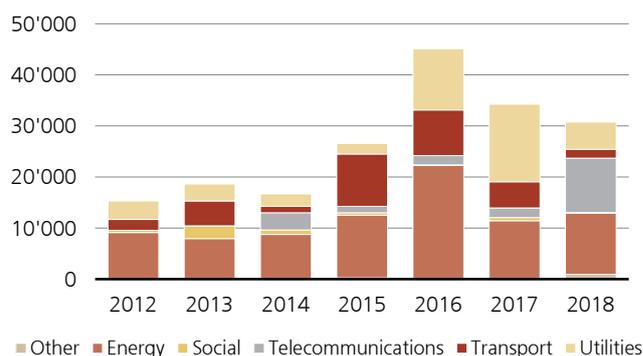
The combination of strong demand from corporates, aggressive State renewable targets, continued improving costs, and the Safe Harbor rules for tax credits should continue to drive renewables expansion in 2019 and 2020, offsetting any headwinds from fading Federal subsidies.

## Private infrastructure markets

### Infrastructure equity

Investor sentiment for infrastructure equity is at record highs. This appetite from infrastructure investors is reflected in the volume of funds raised in 2018 of USD 89.5bn, exceeding the previous fundraising record of USD 73.4bn set in 2017. Transaction volumes in 2018 were slightly lower than 2017 with energy continuing to be the largest sub-sector. However, as discussed earlier, there was a notable increase in telecommunication transactions from 5% in 2017 to 35% in 2018.

**Figure 14: Growing allocation to telecommunications** (USD million)

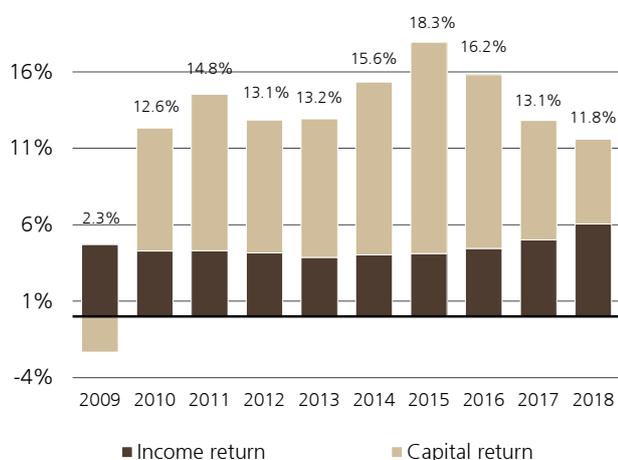


Source: Preqin, January 2019

We observe that the increased capital flowing into the infrastructure sector is causing a shift in investment style to more non-core strategies: almost 50%<sup>2</sup> of funds launched in 2018 and 2019 target a value-add strategy. It can sometimes be difficult to read through the real estate nomenclature of core, core+, value-add and opportunistic. It is perhaps easier to think about style in terms of the income and capital composition of total returns.

**Figure 15: Infrastructure performance**

(Gross total return %, local currency<sup>3</sup>)



Source: MSCI Global Quarterly Private Infrastructure Index, September 2018

Core strategies tend to more income focused whereas value-add and opportunistic strategies rely more on capital growth to meet total returns. The move from non-core strategies can be seen in Figure 15 which shows that over the past five years, the capital component of total returns makes up around 65% of total returns.

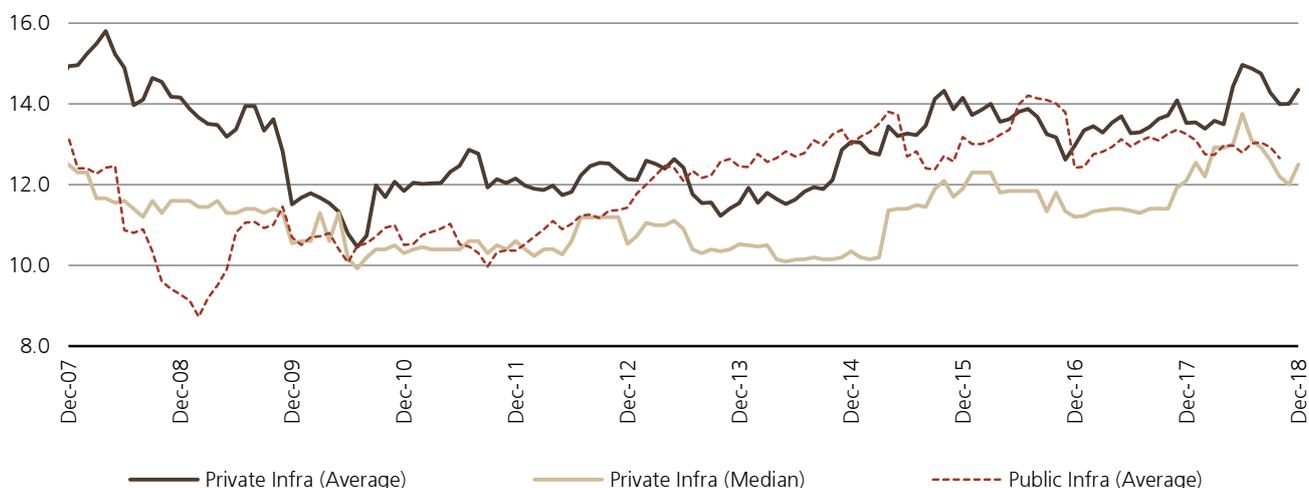
Gross absolute returns for the 12 months to September 2018 contracted to 11.8% from 13.1% over the same period in 2017. The transportation sector delivered 14.9% in 2018, up from 13.7% in 2017 while returns from power assets fell from 13.3% in 2017 to 10.2% in 2018.

In addition to the shift to riskier strategies, the inflows into private markets have also resulted in valuations that are high by historical standards. Looking at the EV/EBITDA multiples in Figure 16, valuations appear to be at 2007 levels. However, the risk-free rate in late 2007 was around 4% versus circa 1.5% today. This has implications for both the cashflow of an infrastructure asset and the attractiveness of the asset class. Infrastructure assets are typically highly leveraged so the impact of lower rates on an infrastructure company's cashflow can be material. However, as EBITDA is calculated pre-debt service, the EV/EBITDA multiple does not adjust for the impact of lower rates making the over-time comparison less meaningful.

<sup>2</sup> Preqin, January 2018

<sup>3</sup> The MSCI index is calculated in local currency and weighted towards Australia (45% at December 2017). Risk-free rates in Australia over the past 5 years have exceeded the G7 average by around 1.5%, resulting in higher overall returns versus a USD-denominated index.

**Figure 16: Private infrastructure EV/EBITDA multiples have shown some volatility in 2018, although it is too early to tell whether private market valuations are responding to public markets**



Source: UBS-AM Proprietary Database (based on 1,200 transactions), Mergermarket, InfraNews, Infrastructure Journal, Infrastructure investors, Bloomberg, January 2019

The low yield environment has contributed to the attractiveness of private markets with investors seeking to capture the premium which private markets can offer. Infrastructure has further benefitted from its strong performance (see Figure 15). The increased interest in the asset class has led to return compression; however, relative to risk-free rates, which have also been falling, infrastructure continues to provide an attractive premium. Additionally, the market is 4x larger than 2007 with many new market participants and an increased understanding of the resilience of the asset class through economic cycles which may mean that valuations have further to run.

The risk of further correction in public markets provides a potential headwind to private infrastructure valuations. Listed infrastructure equities were down in 2018 but performed better than the broad equity markets, especially defensive sectors like utilities. Figure 16 shows that public valuation multiples have not increased since 2016 whereas private infrastructure valuations continued to grow. We did see a slight dip in private multiples in 2H 2018 although it is too early to say if this is reflecting a market change or just an anomaly in the data. Overall, we believe that if listed infrastructure continues to have flat-to-declining valuations, then private markets should adjust, albeit with a lag. In our view if there is a market correction, income strategies will outperform capital growth-orientated ones, as the latter faces higher risk of multiple contraction.

### Infrastructure debt

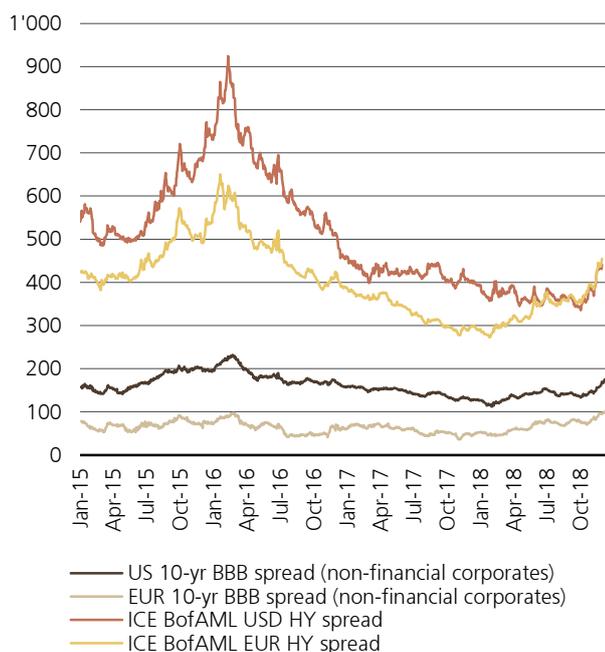
Infrastructure debt is increasingly becoming an important part of institutional investors' allocations. However, it is worth noting that bank financing still makes up between 80-90%<sup>4</sup> of total financing in the infrastructure market.

Globally, nine senior infrastructure debt funds launched over the past two years raised a cumulative USD 3.35bn, which is small relative to the overall size of the global financing market of USD c.300bn (European market: USD117bn). Coinciding with the correction in equity markets, there was also a repricing in public debt markets (see Figure 18). This was more pronounced in the high-yield market, reflecting caution over economic growth, the tapering of government bond-buying programs and worries around the ability of companies to withstand rising rates.

In the private market we have not seen a noticeable repricing on European senior infrastructure debt or in the Term Loan B market in the US. However, if public market spreads continue to widen, we expect this to translate to higher spreads in the private markets. Most infrastructure investors target an illiquidity premium over equivalent corporate bonds; therefore the private market will need to adjust. The structure of the private market means that any repricing in the private market will typically lag any public market correction.

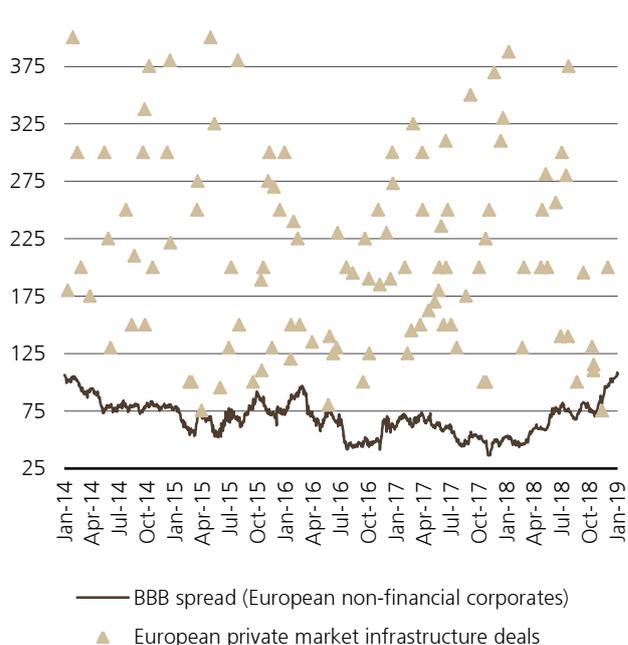
<sup>4</sup> Infra Deals, January 2019

**Figure 17: Historical spreads for investment grade and high yield listed bonds** (bps spread over swaps)



Source: Bloomberg, January 2019

**Figure 18: Private infrastructure debt pricing (2014-2018)** (Spread over swaps in Bps)



Source: UBS Asset Management, Real Estate & Private Markets (REPM); Infrastructure Debt: Infra Deals; Bloomberg BBB Non-financial Corporates: BVCE010 Index.



## Infrastructure Research & Strategy Team

Declan O'Brien  
Alex Leung

For more information please contact

### UBS Asset Management Real Estate & Private Markets (REPM)

Declan O'Brien  
Tel. +44-20 7567 1961  
declan.obrien@ubs.com

Alex Leung  
Tel. +1-212 821 6315  
alex-za.leung@ubs.com

Follow us on LinkedIn 

[www.ubs.com/infrastructure](http://www.ubs.com/infrastructure)

**This publication is not to be construed as a solicitation of an offer to buy or sell any securities or other financial instruments relating to UBS AG or its affiliates in Switzerland, the United States or any other jurisdiction.** UBS specifically prohibits the redistribution or reproduction of this material in whole or in part without the prior written permission of UBS and UBS accepts no liability whatsoever for the actions of third parties in this respect. The information and opinions contained in this document have been compiled or arrived at based upon information obtained from sources believed to be reliable and in good faith but no responsibility is accepted for any errors or omissions. All such information and opinions are subject to change without notice. Please note that past performance is not a guide to the future. With investment in real estate/infrastructure/private equity (via direct investment, closed- or open-end funds) the underlying assets are illiquid, and valuation is a matter of judgment by a valuer. The value of investments and the income from them may go down as well as up and investors may not get back the original amount invested. Any market or investment views expressed are not intended to be investment research. **The document has not been prepared in line with the requirements of any jurisdiction designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.** The information contained in this document does not constitute a distribution, nor should it be considered a recommendation to purchase or sell any particular security or fund. A number of the comments in this document are considered forward-looking statements. Actual future results, however, may vary materially. The opinions expressed are a reflection of UBS Asset Management's best judgment at the time this document is compiled and any obligation to update or alter forward-looking statements as a result of new information, future events, or otherwise is disclaimed. Furthermore, these views are not intended to predict or guarantee the future performance of any individual security, asset class, markets generally, nor are they intended to predict the future performance of any UBS Asset Management account, portfolio or fund. Source for all data/figures, if not stated otherwise: UBS Asset Management, Real Estate & Private Markets. The views expressed are as of February 2019 and are a general guide to the views of UBS Asset Management, Real Estate & Private Markets. All information as at February 2019 unless stated otherwise. Published February 2019.  
**Approved for global use.**

© UBS 2019 The key symbol and UBS are among the registered and unregistered trademarks of UBS. Other marks may be trademarks of their respective owners. All rights reserved.

