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Marketing Material

Research Report

Europe Infrastructure Strategic Outlook 2016

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Passion to Perform

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1 Executive Summary

In 2016, we expect that private investors would continue to exhibit increasing interest in European unlisted infrastructure, now that the asset class - though still growing - has reached a fair degree of maturity for both equity and debt.

In 2015, valuations increased in the unlisted space, mainly for large, regulated assets[1]. In our view, opportunities remain for investors in the middle market to acquire assets where a reasonable premium over government yields is achievable. Furthermore, transactions requiring structuring present the opportunity for active asset management to create value through operational, strategic and financial expertise.

- **Key markets:** Prospects remain favourable in Europe in 2016, offering a diverse mix of investment opportunities. In our view, the most relevant markets for infrastructure investment remain tier one core countries including the United Kingdom, Germany, France, the Netherlands, and the Nordics. Italy and Spain remain two core infrastructure markets in Europe, but we believe that these should be placed higher in the risk/return scale[2]. These countries offer a predictable investment environment, a transparent legal and regulatory framework and a long history of private ownership of infrastructure. These factors are important for core and core plus infrastructure investment strategies looking to benefit from inflation-hedged, long-term income return stability with some capital growth potential and relatively low cash-flow volatility.

- **Transportation:** In 2016, economic recovery is forecast to continue in Europe[3], proving supportive for transportation operations and investment fundamentals. Traffic volumes are forecast to grow, particularly for toll roads and airports. For ports, strategic location should be a key factor to offset the risk of rising volatility in global trade, following the slowdown in Chinese commodity demand. In 2016, we see a number of opportunities in transportation in Europe, including privatisations in the French and Italian rail sector.

- **Energy & Networks:** Inflation is forecast to remain modest in the medium-term in the Eurozone, while in the United Kingdom, it may require longer to return closer to the Bank of England's (BOE) target of 2%. This low-inflation scenario might prove challenging for networks, where regulation supports long-term income stability, but where earnings growth is often linked to inflation.

  In 2016, the structural shift in electricity generation towards renewables, weak commodity prices, and utilities continuing to deleverage through disposals, should continue to be disruptive factors across European energy, offering potential investment opportunities. Climate change policies will continue to support renewables, while weak commodity prices will reduce consumer energy tariffs, somewhat easing subsidy affordability concerns and mitigating the risk of further political intervention or retroactive tariff cuts[4]. In 2016, we see further renewable investment, mainly in Germany, France, and the United Kingdom.

- **Infrastructure Debt:** European infrastructure debt continues to be a growing area of interest, particularly in Europe, where the private loan market is supported by a rising number of new projects requiring funding, with narrower, albeit reasonable illiquidity premia over corporate bond spreads[5]. In Europe, historically low interest rates should continue to support refinancing activity in 2016[6], while we expect the pipeline for acquisition financings and project bonds to strengthen further due to growing interest from institutional investors.

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[1] Based on Deutsche AM proprietary database for European unlisted infrastructure transactions, January 2016.
[2] Based on Deutsche AM proprietary model for ranking European countries for unlisted infrastructure investment, January 2016.
[3] Oxford Economics, January 2016.
[4] Moody's, 2016 Outlook, EMEA Regulated Electricity & Gas Networks, November 2015.
[5] Based on Deutsche AM proprietary database for private debt infrastructure transactions, January 2016.
[6] Standard & Poor's, Project Finance: Rate Rise May Herald A Wave Of Refinancing In The Bond Market, December 2015.

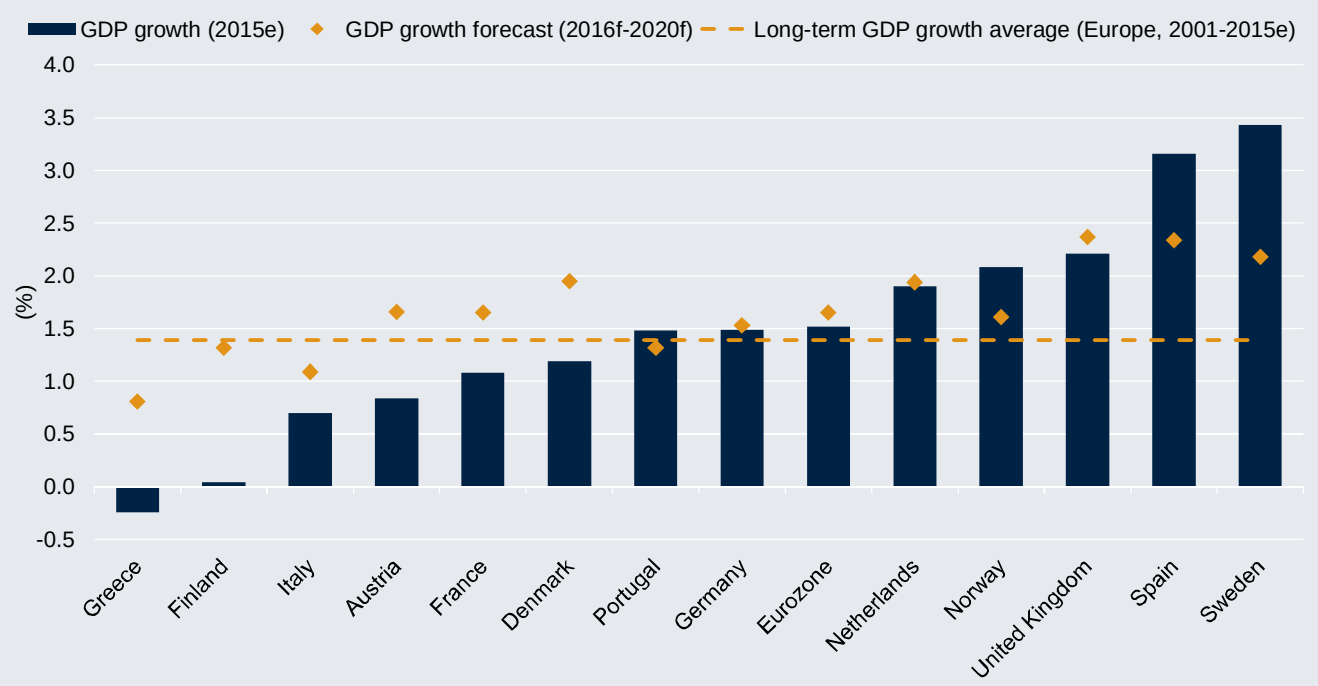
2 Economic Outlook

The 2016 outlook for Europe remains one of gradual recovery. However, unlike previous years, Europe seems to be on a firmer footing relative to other parts of the globe. Although the continent has not been immune to recent global uncertainty, consumers and businesses have so far seemed undeterred, leading to an acceleration of GDP growth in 2015[7].

Despite financial market volatility and some moderation in January, many lead indicators continued to show consistent growth in early 2016. This was evident in the Purchasing Managers' numbers which showed private sector growth in the Eurozone still expanding at a satisfactory pace[8]. And with the European Commission's Economic Sentiment Indicator still well above average in January, this suggests that growth should be sustained throughout the early part of 2016[9].

The acceleration of economic growth is being driven by consumer spending and exports. Household balance sheets are benefitting from the recent fall in energy prices and the creation of an additional 2.5 million European Union (E.U.) jobs over the past year, while the weakening of the Euro supported export growth of around 5% in 2015. Going forward, business investment is set to be an increasingly important part of the recovery, and credit conditions having been hampered by banking sector deleveraging, are now easing[10].

GDP growth (%, 2015e-2020f)



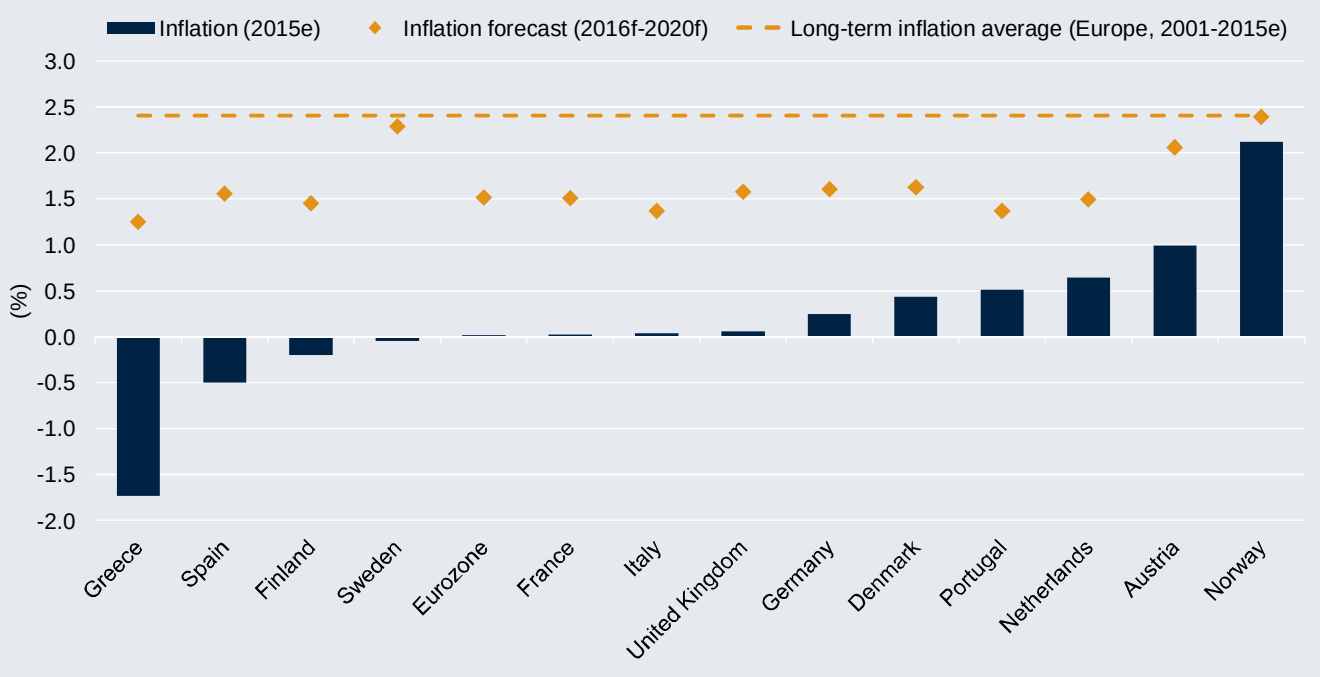
Source: Oxford Economics, January 2016. Notes: e=expected, f=forecast. There is no guarantee that the forecasts will materialize.

The Euro has depreciated on the back of further easing by the European Central Bank (ECB). The ECB has not been alone in loosening, with rate cuts seen in both the Nordics and Central and Eastern Europe (CEE). With inflation running close to zero, record low bond yields remain, with negative 5-year yields in countries such as Germany and Sweden[11].

[7] Oxford Economics, January 2016.
[8] Markit, February 2016.
[9] European Commission, February 2016.
[10] European Central Bank, October 2015.
[11] Oxford Economics, January 2016.

This return to growth is not expected to be highly inflationary. Although the drag from falling oil prices will fade this year, there remains considerable spare capacity in the system, thus monetary policy should thereby remain accommodating in the medium-term. With this, the relative attractiveness of real asset-backed income returns, including infrastructure, should be favourable for some time. Even in the United Kingdom, where policy rates may rise as early as 2016, rates are forecast to be less than half their pre-recession level at the end of the decade[12].

Inflation rate (%, Consumer Price Index)



Source: Oxford Economics, January 2016. Notes: e=expected, f=forecast. There is no guarantee that the forecasts will materialize.

GDP growth in Europe still tends to be strongest in countries outside the Eurozone, although the gap is closing. While, on average, the outlook is little changed from six months ago, countries such as the Netherlands and Sweden have been modestly upgraded.

Of the three largest economies – accounting for half of E.U. output – Germany is doing relatively well, while the French recovery may now gather pace in 2016 on the back of a more business-friendly policy environment. Having slightly disappointed in 2015, the United Kingdom is set to remain one of the better performers over the coming years, although uncertainty over E.U. membership could dampen activity in the run up to the proposed referendum[13].

Across the rest of Europe, Spain saw some of the highest growth in 2015, and should continue to benefit from previous reforms and cost adjustments, while Italy is showing signs of outperforming expectations. The exporting countries of the Benelux are set to benefit from the weaker Euro, while Sweden is the stand out performer in the Nordics region buffeted by lower commodity prices and requiring structural adjustment. CEE countries should further converge with Western Europe, although recent policies by the new Polish government have increased downside risks to the outlook.

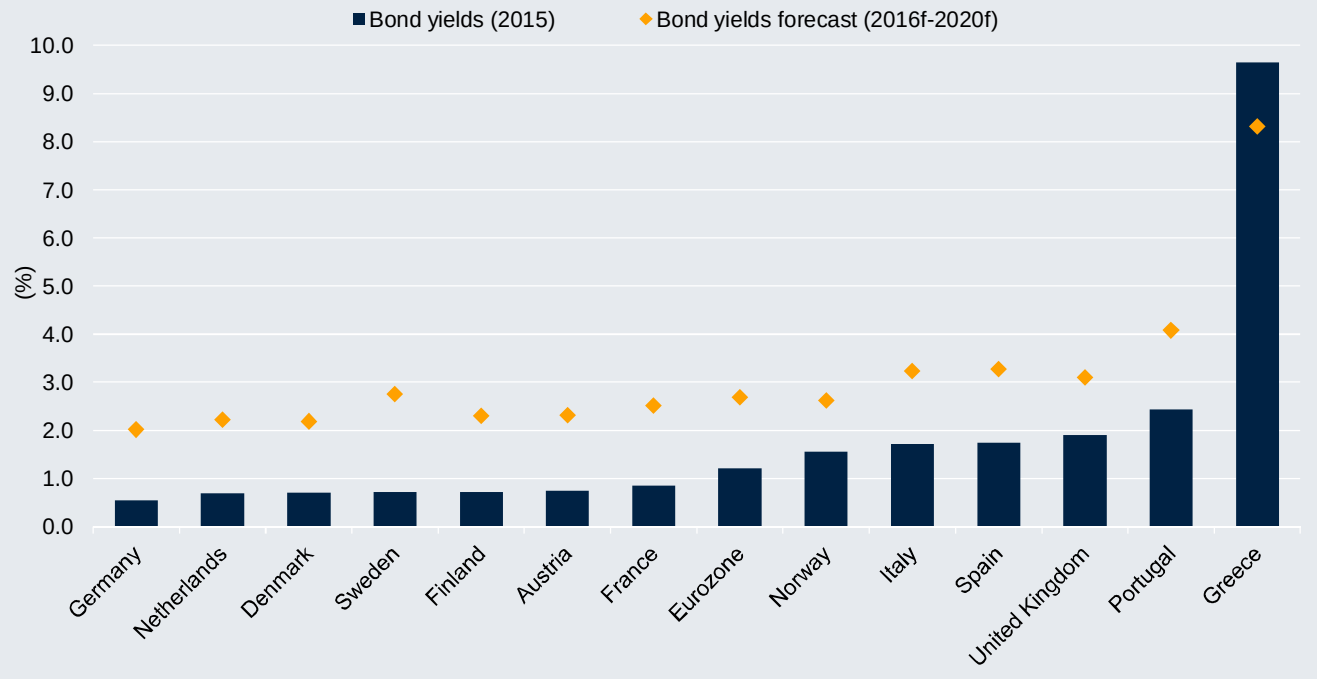
The unemployment rate fell in the European Union during 2015[14] and on aggregate is forecast to trend lower over the rest of the decade. Despite projections of an almost unchanged working age population, the revival of

[12] Oxford Economics, January 2016.
[13] Reuters, UK referendum on EU could take place in few months – Cameron, February 2016.
[14] Eurostat, January 2015

the labour market is set to create an additional 6 million jobs by 2020 and will be a key driver of real assets demand and particularly infrastructure[15].

Political risk remains evident across the continent. Elections in Portugal and Spain yielded inconclusive results, while the new government's policies in Poland are already under scrutiny from the European Commission. Political risk is on the rise in the United Kingdom. This year will likely see the vote on European Union membership in the United Kingdom, and the Scottish parliamentary elections in May solidify the majority of the Scottish National Party, raising the risk of a second referendum on Scottish independence. The United Kingdom remains the most stable market for infrastructure investment in Europe, with a mature and transparent institutional framework[16].

Sovereign long-term bond yields (%, 10 year bonds)



Source: Oxford Economics, January 2016. Notes: e=expected, f=forecast. There is no guarantee that the forecasts will materialize.

[15] Oxford Economics, January 2015.
[16] Based on Deutsche AM proprietary model for ranking European countries for unlisted infrastructure investment, January 2016.

3 European Infrastructure Outlook[17]

3.1 Industry Overview

In 2015, a number of trends shaped the operational performance of infrastructure, with European energy and transportation being exposed to different dynamics. The European transportation industry returned to growth in 2014 and accelerated in 2015, on the back of supportive macroeconomic fundamentals. While in 2015, airports' traffic volumes moved above pre-crisis levels in most European hubs, European toll roads continued their process of gradual recovery[18].

In 2016, with the economic recovery expected to strengthen in Europe, traffic volumes across the transportation industry are forecast to grow, particularly for toll roads and airports. At the same time, ports might be experiencing some volatility, following the slowing in Chinese manufacturing and commodity demand[19]. Growing traffic volumes should translate into a modest improvement in financial performance across the transportation industry, with stronger operating margins, modest deleveraging, and a consolidation of dividend payments[20].

The energy sector experienced another challenging year in 2015, with profitability of conventional power generators remaining weak due to sluggish energy demand, rising subsidised renewables, and low power prices, particularly impacting baseload electricity generators[21]. Overcapacity continued to affect European utilities resulting in continued deleveraging through disposals in Europe, and investment refocus on faster growing, emerging geographies, and regulated areas of energy services, including renewables.

For 2016, the European economic recovery does not materially change our view of the European energy industry. Weak electricity demand, rising energy efficiency and utilities continuing to refocus business models will continue to represent disruptive factors across European energy. In 2016, low commodity prices, should continue to have structural repercussions across the energy industry and investment strategies, but should move spark spreads[22] into positive territory in a number of countries, including the United Kingdom, Italy, and Spain[23]. However, in our view, the development of capacity markets[24] should remain a key driver to support the continued requirement for investment in thermal generation in the long-term, particularly in gas-fired turbines, given the projected increase of intermittent renewable generation.

The financial performance of the European energy sector is forecast to remain fairly stable throughout 2016, with key energy players continuing to make use of narrowing operational and financial flexibility, including disposals, deleveraging, and in some cases dividend reductions to absorb structural changes in the market[25].

In 2015, Europe remained supportive for infrastructure operations, given its predictable and mature institutional and legal framework on a global comparison scale. However, the recent past saw an increase in the level of political and regulatory intervention, for example in case of renewables, where retroactive reductions to subsidies were imposed in Spain and Italy.

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[17] Any forecasts provided herein are based upon Deutsche AM's opinion of the market at this date and subject to change dependent on the market as at January 2016.
[18] Eurostat, Deutsche AM internal database based on selection of European listed infrastructure peer companies 'forecast, January 2016.
[19] Oxford Economics, January 2016.
[20] Bloomberg, Deutsche AM internal database based on selection of European listed infrastructure peer companies 'forecast, January 2016.
[21] Bloomberg, Deutsche AM, January 2016.
[22] Spark spreads represent the theoretical gross margin of a gas-fired power plant from selling a unit of electricity, having bought the fuel required to produce this unit of electricity.
[23] Bloomberg, January 2016.
[24] Capacity markets ensure adequate balancing of an electrical system, by remunerating baseload generators for the capacity they make available, rather than for the electricity generated.
[25] Bloomberg, Deutsche AM internal database based on selection of European listed infrastructure peer companies 'forecast, January 2016.

In 2015, tariffs were frozen for French toll roads, while returns were reduced for United Kingdom water networks for the regulatory period 2015-2020 (AMP6).

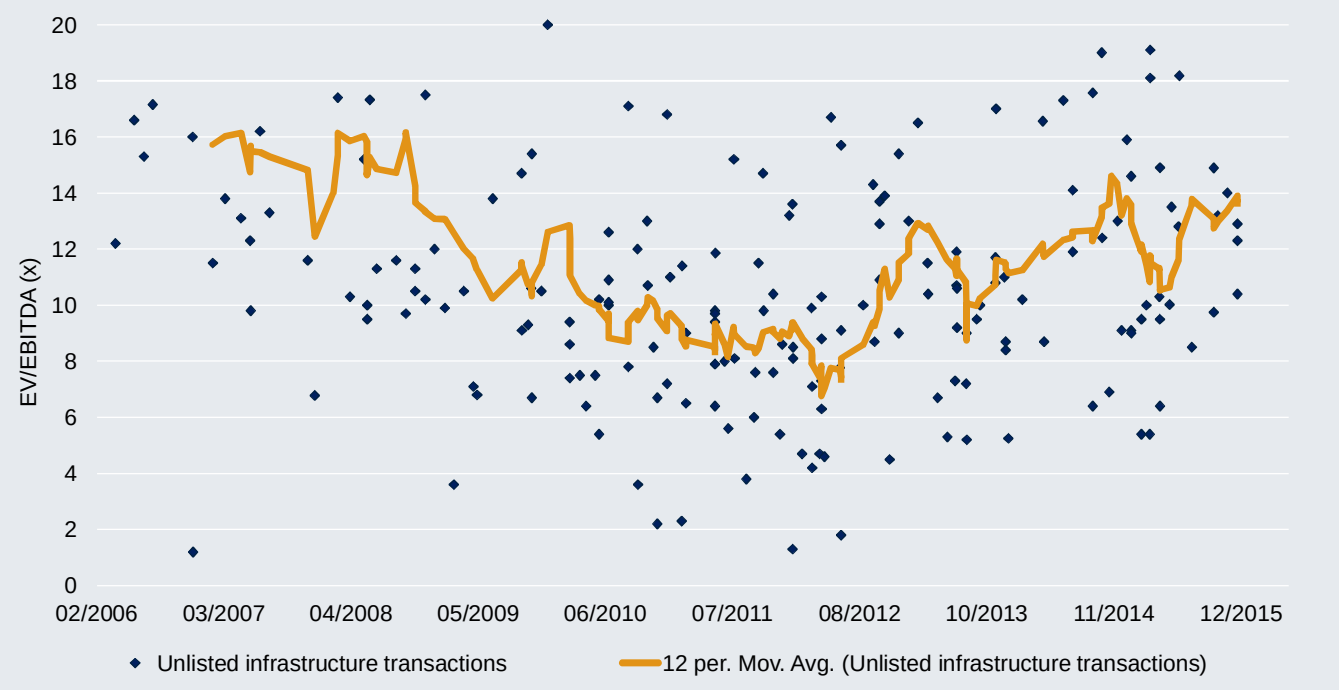
In Italy, the regulator (AEEGSI) recently revised regulated returns downwards for electricity and gas networks, although at the same time it increased cash-flow visibility[26]. With inflation forecast to remain weak in Europe throughout 2016 and in the medium-term, networks will enjoy limited earnings growth potential, although low inflation may also mitigate the risk of renewed political and regulatory intervention, particularly in core European markets, where regulatory predictability is higher[27]. For toll roads and renewables, weak commodity prices should reduce consumer energy tariffs, further easing subsidy affordability concerns.

3.2 Market Overview[28]

Over recent years, global unlisted infrastructure has recorded persistent double digit total returns[29]. This has predominantly been led by the transport sector and regulated/contracted assets, with unregulated power tending to see more volatile capital growth. We expect that investors would continue to favour unlisted infrastructure and thereby we expect this momentum to flow into 2016.

Although the recent rise in valuations, particularly for larger assets in core countries may curb performance over the short-term, we believe that the asset class should remain attractive on a relative basis in the medium- to long-term, as it has demonstrated potential for relative long-term income return stability[30].

Unlisted infrastructure EV/EBITDA (x, Europe, 2006-2015)



Source: Deutsche Asset Management proprietary database, based on confidential third-party data, January 2016.

[26] Fitch, Return on capital update is credit positive for Italian networks, December 2015.
[27] Based on Deutsche AM proprietary model for ranking European countries for unlisted infrastructure investment, January 2016.
[28] Any forecasts provided herein are based upon Deutsche AM's opinion of the market at this date and subject to change dependent on the market as at January 2016.
[29] MSCI Global Quarterly Infrastructure Asset Index, Summary – Period ending June 2015, December 2015.
[30] MSCI Global Quarterly Infrastructure Asset Index, Summary – Period ending June 2015, December 2015.

In 2015, unlisted infrastructure investment enjoyed another year of growth, with 46 funds closing, with a total of EUR 33.1 billion[31] globally. Europe remained the leading infrastructure market globally, as the largest proportion of capital secured in 2015 was by primarily Europe-focused funds, with 18 funds closing, on aggregate EUR 13.1 billion[32].

Europe also saw the highest number of transactions closed in 2015, with EMEA accounting for 45% of the 1,147 infrastructure deals closed globally (EUR 173 billion), while Asia accounted for 22%, North America for 21% and Latin America for 12%. From a country perspective, in Europe, the United Kingdom remained the leading infrastructure market in 2015, accounting for 40% of the transactions closed with a total of 447 deals[33].

Transport remained the largest investment sector, accounting for 35% of transactions closed. However, this was down from 39% in 2014. Renewables continued to grow, reaching 28% in 2015 from 23%. A total of 239 refinancing transactions took place in 2015, raising EUR 73.6 billion in debt, and surpassing the 148 refinancing transactions (EUR 58.9 billion) in 2014[34].

Low interest rates continued to support the volume of infrastructure debt transactions, with refinancing activity accounting for 28%, while brownfield accounted for 31% and greenfield for 41%, and transactions taking place across a number of sectors, including mainly renewables, roads and rolling stock. The volume of greenfield transactions continued to increase, with investors often trying to unlock yield by moving up the risk/return spectrum, in response to the recent rise in asset pricing, particularly for larger assets in core markets.

Although valuations are on average still below historical levels reached in 2007/2008 (when average EV/EBITDA was ca. 16x), and in 2015 reached on average 14x EV/EBITDA[35], the combination of a slightly smaller deal pipeline compared with previous years, good liquidity, and high levels of dry powder targeting assets has led to increasing competition in the sector. However, this has mainly happened for larger assets at the direct end of the market, or for large investors with pressure to deploy capital[36].

For 2016, although the pipeline of infrastructure transactions will likely grow, we expect that several drivers could support valuations for European unlisted infrastructure assets, including dry powder levels, continued availability of debt financing, and a higher number of investors looking to invest in the asset class. In our view, valuations of transportation assets will continue to reflect the favourable industry outlook, supported by improving macroeconomic fundamentals, while valuations in the unregulated energy sector should continue to factor in the potential volatility related to structural changes taking place in the industry.

The MSCI Global Infrastructure Asset Index demonstrates that unlisted infrastructure tends to expose investors to relatively low total return volatility, and hence high Sharpe ratios[37]. The asset class has demonstrated potential for long-term income return stability, where a reasonable premium over government bond yields can be achieved, but where capital returns can be exposed to potential volatility. Looking at sector specific performance, in the recent past capital returns have mirrored the dynamic described for valuations, with the transportation sector benefiting from expectations of improving operational fundamentals. With the exception of regulated networks that tend to offer more stable propositions, capital returns in the power sector proved to be on average more volatile, reflecting the structural changes that the sector is undergoing.

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[31] Amount converted in EUR from USD using a conversion rate USD/EUR of 0.92, equivalent to the average exchange rate for 2015.
[32] Preqin, "2015 Fundraising Update", January 2016.
[33] Infra News 2015 transaction database download, January 2016. Figures include all European projects in the data base that have been listed with the status "Financial Close". This figure reflects both infrastructure project financing and non-project financing deals.
[34] Infra News 2015 transaction database download, January 2016.
[35] 12 months rolling averages, based on Deutsche AM proprietary database for European unlisted infrastructure transactions, January 2016.
[36] Based on Deutsche AM proprietary database for European unlisted infrastructure transactions, January 2016.
[37] Deutsche AM, Research Report, "Why Invest in Infrastructure?", May 2015.

MSCI Global Infrastructure Index by sector, (avg. annual return, % and standard deviation)		
	5-years to September 2015	
	Return (%)	**Standard deviation**
Power		
Total return	12.8	5.1
Capital return	7.6	4.9
Income return	4.9	0.7
Transport		
Total return	17.3	3.5
Capital return	12.9	3.6
Income return	4.1	0.4

Source: MSCI Global Infrastructure Asset Index, period ending September 2015, January 2016. The sum of income and capital returns may not equal total return due to rounding and/or the compounding of individual component returns to each other.

The specific sector-by-sector fundamentals, current market situations and outlook underpin our view that investing in unlisted infrastructure requires strategic asset allocation decisions, a detailed understanding of jurisdictions and regulation, and specific asset management skills to mitigate risks and support investment returns.

3.3 Strategic Recommendations

We believe that investors looking to allocate to unlisted infrastructure in 2016 should consider the following recommendations to maximise risk adjusted return potential.

- **Core markets:** According to our proprietary model for ranking infrastructure investment in European countries[38], the most relevant markets for core infrastructure investment remain the United Kingdom, Germany, France, the Netherlands, and the Nordics. Our view remains positive also for Italy and Spain, combining slightly higher risk/return potential with relatively good market fundamentals, but with warning flags given past regulatory changes and higher regulatory uncertainty in regulated businesses.

  These markets offer a relatively predictable investment environment, a transparent legal and regulatory framework, and a proven track-record of private infrastructure ownership. These factors are important for core and core plus investment strategies looking to benefit from inflation-hedged, long-term income return with some capital growth potential and relatively low cash-flow volatility[39].

- **Middle market:** We believe that the middle market offers opportunities for investors to acquire assets at reasonable valuations, where there can be less competition. Furthermore, opportunities requiring structuring or a differentiated approach present the opportunity for experienced active asset managers to create value through operational, strategic, and financial expertise in the medium and long-term[40].

- **Transportation and renewables:** In 2016, economic recovery is forecast to strengthen in Europe, proving supportive for transportation investment fundamentals, while the energy sector should continue to experience structural changes. Subsidised renewables will represent an area of continued growth for core infrastructure investment, while other assets in the energy space are potentially more suitable for opportunistic investment strategies complementing a portfolio.

[38] Deutsche AM's proprietary model for ranking European countries for unlisted infrastructure investment takes into considerations a number of factors, including country risk, country economic strength and growth prospects, the strength and predictability of the institutional and regulatory framework, infrastructure endowment and competitiveness as well as the infrastructure market size and liquitiy.
[39] Based on Deutsche AM proprietary model for ranking European countries for unlisted infrastructure investment, January 2016.
[40] Based on Deutsche AM proprietary database for European unlisted infrastructure transactions, January 2016.

- **Brownfield assets with some growth potential:** In our view, investors should focus on brownfield assets with some growth/development potential, if pursuing core and core plus infrastructure investment strategies. Brownfield infrastructure can offer relatively low income return volatility, due to regulated or contracted revenue streams, while additional growth/development potential, can enhance returns through expansionary investment and management initiatives.

- **Greenfield can complement a portfolio:** Greenfield opportunities remain a valuable strategy in more stable core countries, and offer the possibility to generate alpha. Such opportunities can complement a portfolio with higher returns while many of the increased risks associated with early stage investing (i.e. in construction-ready assets) can be mitigated.

- **Infrastructure debt:** For 2016, we believe that private infrastructure debt remains supportive for investment strategies looking for alpha, illiquidity premia over corporate bond spreads, enhanced lender protections, and higher portfolio diversification compared with fixed income securities.

- **Megatrends:** Several megatrends, including demographic, economic, environmental and technological changes, are likely to influence infrastructure investment in Europe in the long-term. We believe that investors should be thinking about these factors now, due to the present value implications of long-dated trends.

  Europe's objective to reduce emissions and commitments in certain countries to phase out a reliance on nuclear energy point to a significant reshaping of the energy sector in the coming years, while environmental policies will continue to drive an increase in waste recycling and promote alternatives to landfills and incineration[41]. Moreover, a number of technological changes including energy storage, energy efficiency, electric mobility and zero emission technologies will drive investment in infrastructure in coming years, influencing investment volumes and return distributions across the value chain[42].

[41] European Commission, Towards a circular economy: A zero waste programme for Europe, September 2014.
[42] Deutsche AM, Research Report, European Infrastructure Update 2015: Mid-Year Review, August 2015.

4 Key Infrastructure Sectors & Markets Overview

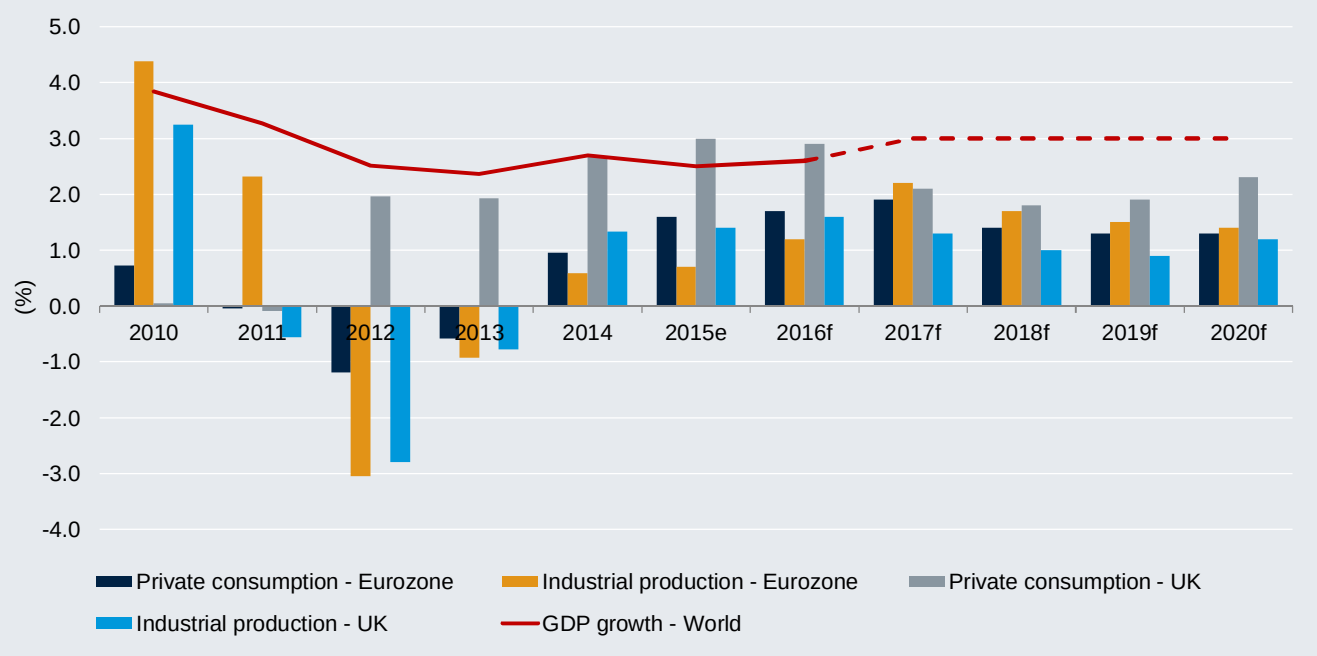
4.1 Transportation

Operations: Following a prolonged period of decline caused by the global economic downturn, the European transport industry has moved back to low growth between 2014 and 2015, in particular with European airport traffic volumes moving above pre-crisis levels in most European hubs.

The economic downturn affected European road transportation negatively, with traffic still below pre-crisis levels in some cases, while maritime traffic performance was also affected, due to declining industrial activity and private consumption.

In 2016, the performance of European transportation is forecast to improve, supported by economic growth consolidation, and we should continue to observe this trend in the medium-term[43]. The macroeconomic outlook should particularly support road and airport traffic volumes, while regulated tariffs should remain broadly stable as a result of low inflation[44].

Key macroeconomic transportation demand volume drivers (%, annual growth, 2010-2020f)



Source: Oxford Economics, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

Transportation is a complex industry, and includes among others air, marine, road and rail passenger, and freight services. Although there are differences across industry sub-sectors and regions, traffic volumes have a strong correlation to GDP growth, and in particular to private consumption, impacting passenger volumes as well as industrial production, which drives freight transportation volumes[45].

Prospects for private consumption remain favourable in Europe, supporting private vehicle traffic volumes on toll roads and airport passenger volumes. However, the recent slowdown in China and emerging markets might weigh on global trade, and this might, in particular, put pressure on heavy vehicle traffic volumes on toll roads

[43] Oxford Economics, January 2016.
[44] Moody's Investors Service, 2016 Outlook – European Transport Infrastructure, October 2015.
[45] Deutsche AM, European Infrastructure Update 2015: Mid Year Review, August 2015.

as well as freight traffic volumes for sea ports that are not protected by a diversified revenue stream, and are more exposed to competitive pressure. In addition, international airport hubs with a material exposure to emerging economies might experience some passenger demand volatility, albeit potentially mitigated by strong domestic demand.

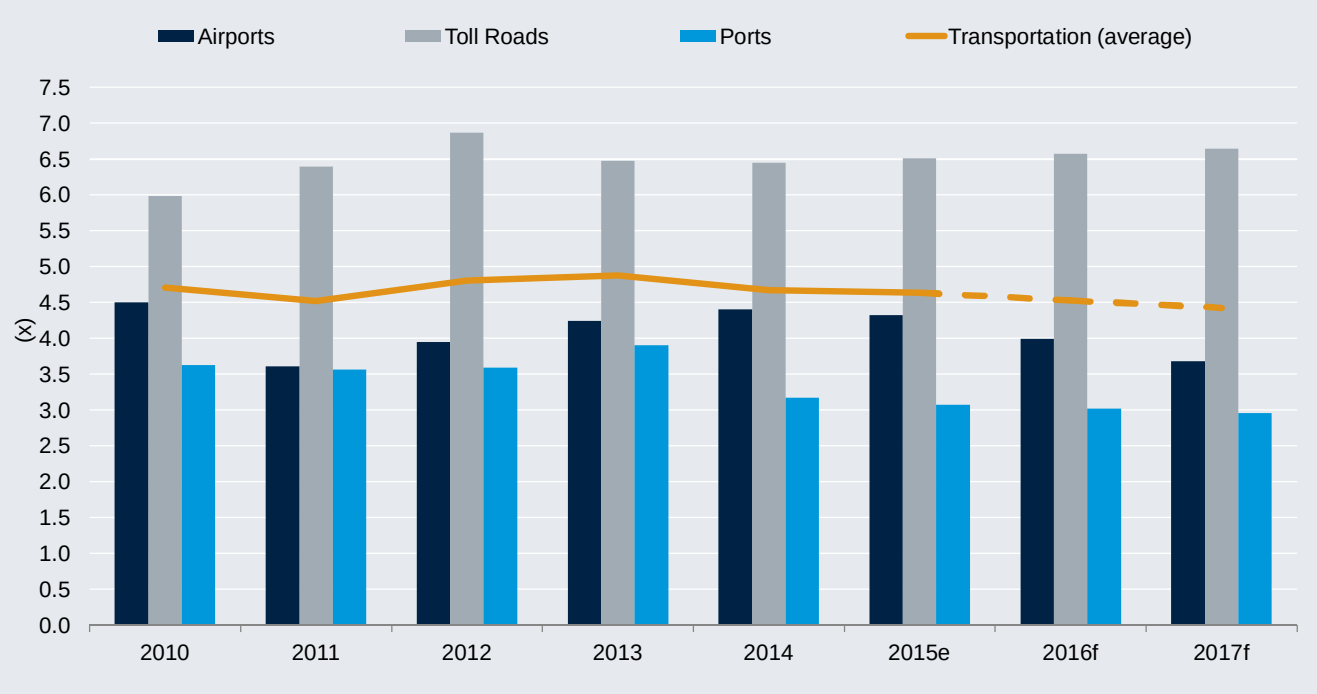
Financial Performance: Growing traffic volumes should translate into a modest improvement in financial performance across the transportation industry, with key European industry players forecasting on average an improvement in operating performance (measured by EBITDA margin), as well as a consolidation of dividend payments[46], with average dividend yields stabilising at about 3%.

In our view, the investment pipeline across the transportation industry should remain relatively limited for corporate players as, on average, the projected growth in traffic volumes will be absorbed by the spare capacity still available after the recent crisis, and capital expenditure requirements will therefore be relatively limited.

Private-Public Partnership (PPP) road projects will support the investment pipeline while refinancing activity, driven by the low interest rate environment, should support the debt pipeline[47].

As a result, we forecast on average the European transportation industry to modestly deleverage in 2016 (measured by debt/EBITDA), particularly across the airport sector. Deleveraging might translate into improving credit fundamentals over the medium-term, and further reduce debt spreads across the transportation industry.

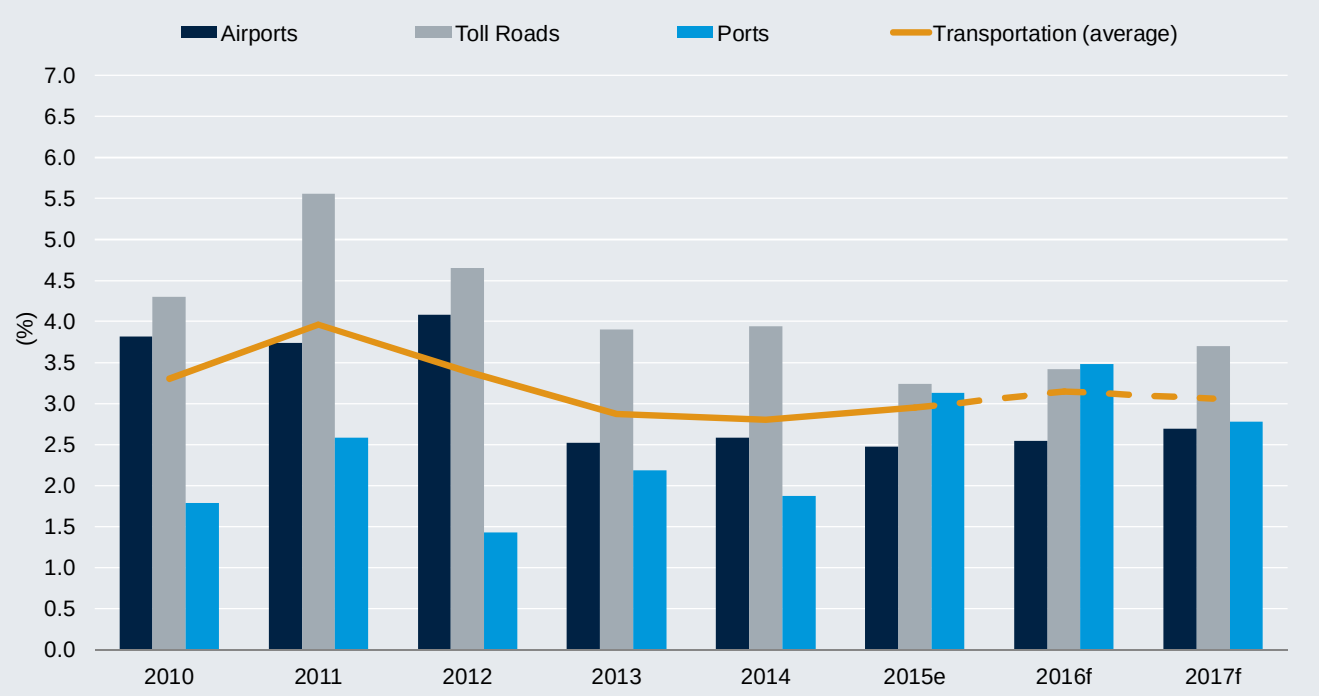
Transportation, average debt/EBITDA (x, 2010-2017f)



Source: Bloomberg, Deutsche Asset Management internal database based on a selection of European infrastructure listed peer companies' forecast, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

[46] Bloomberg, Deutsche AM internal database based on selection of European listed peer companies 'forecast, January 2016.
[47] Infra News, transaction database, January 2016.

Transportation, average dividend yields (%, 2010-2017f)



Source: Bloomberg, Deutsche Asset Management internal database based on a selection of European infrastructure listed peer companies' forecast, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

Strategic Recommendations: In our view, investment fundamentals for the European transportation industry remain favourable.

- **Economic growth:** We believe that investors should focus on assets that can benefit from consistent economic growth prospects in the medium-term, such as transportation, particularly in the United Kingdom, Germany, the Nordics, and Spain[48].

- **Privatisations:** While economic growth prospects in France and Italy remain fragile, potentially limiting the growth of transportation volumes, our view remains favourable for privatisations in these countries, particularly for passenger freight rail, and rolling stock. We believe that investors could benefit from access to strategic assets suitable for core and core plus investment strategies, with stable income streams and the opportunity to unlock value through capital growth potential in the medium-term.

- **Airports, toll roads:** Traffic volumes are forecast to grow, particularly for toll roads and airports where we remain bullish. Airports in particular may offer a mix between regulated and unregulated cash-flow, and offer investors exposure to capital appreciation potential. However valuations for large airport hubs may limit returns, while smaller airports might offer potential for medium-term capital appreciation, albeit being potentially smaller and having less diversified catchment areas.

- **Ports:** For assets potentially exposed to the global economy, including ports, investors should favour strategic location, including major logistics hubs, mitigating the potential for shipping freight volume volatility in the short-term, and with the potential to implement strategic asset management initiatives to improve operations and business volumes in the medium-term.

[48] Oxford Economics, January 2016.

4.2 Energy & Networks

Operations: The European energy sector is set to experience another challenging year in 2016, driven by the long-term structural shift in electricity generation towards renewables, sluggish energy demand growth, particularly in core European countries, and weak energy prices.

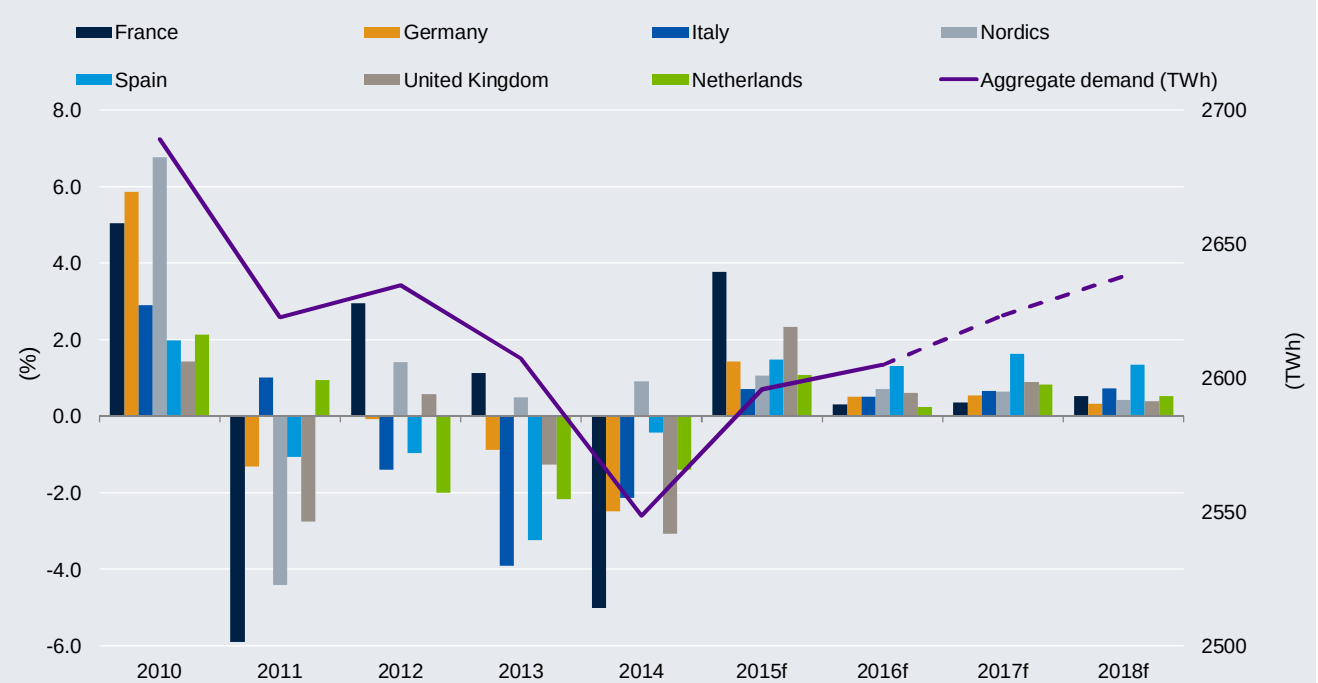
In 2015, baseload generators have found it increasingly difficult to cover the costs of conventional thermal plants, with even the most efficient facilities earning little or no return on invested capital. Generators have responded to the marked deterioration in the economics of conventional power producers with an upsurge in mothballing and retirement of fossil fuel-fired units, as well as the postponement of new thermal generation plants.

For 2016, the persistence of low commodity prices should continue to have structural repercussions across the energy industry, leading to a further slowdown in the development of new U.S. shale gas and new regasification capacity (LNG) projects in Europe, as LNG plants are more reliant on sustained high oil prices to generate adequate returns[49].

Economic growth is forecast to strengthen in Europe, but this does not materially change our view of European energy markets. Structural changes to the energy market would continue to pose a challenge to electricity demand growth in the future.

In western Europe, in particular, there is a growing push towards energy efficiency, and while many industrial users have already implemented actions to reduce energy consumption levels, a significant increase in efficiency is forecast in the residential sector including measures to improve household energy efficiency, thermal insulation, and the adoption of smart meters[50].

Power demand growth by country and aggregate demand (%, TWh, 2010-2018f)



Source: Deutsche AM, Wood Mackenzie, Bloomberg, December 2015. Notes: f= forecast. There is no guarantee that the forecasts will materialize.

[49] Deutsche AM, Research Report, European Infrastructure Update 2015: Mid-Year Review, August 2015.
[50] Deutsche AM, European Infrastructure Update 2015: Mid Year Review, August 2015.

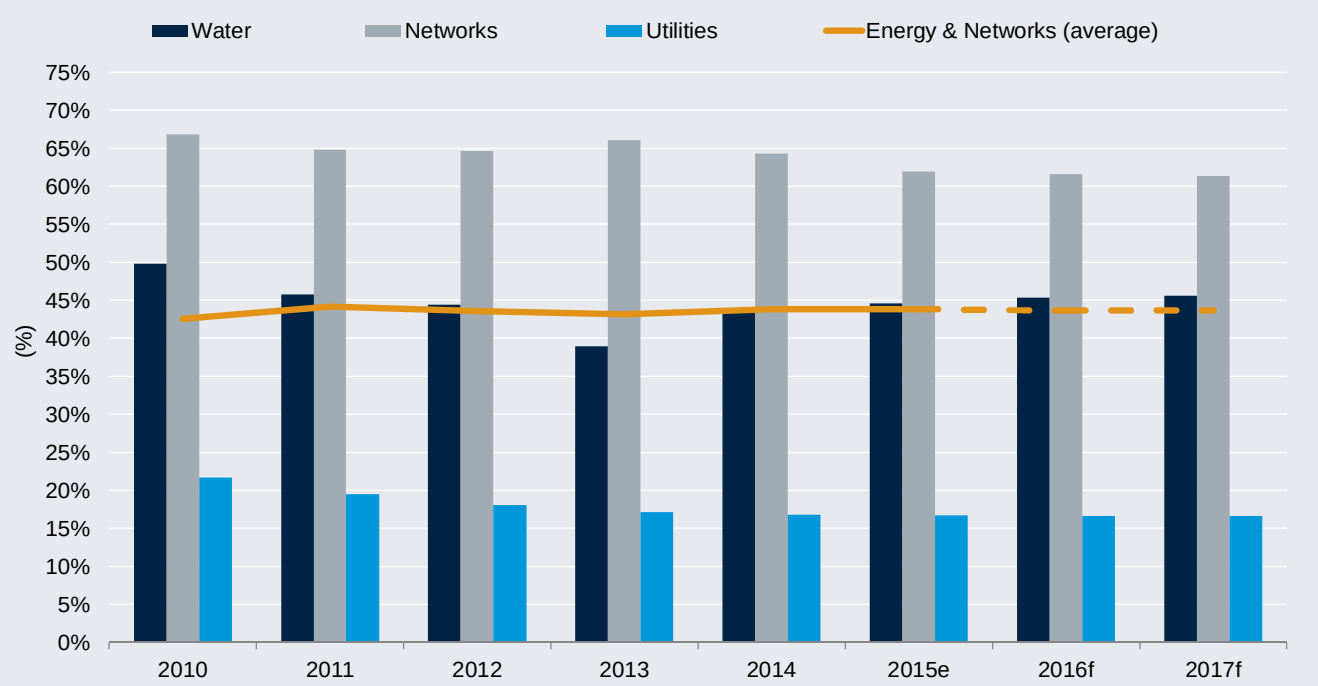
Low energy prices resulting from sluggish demand and overcapacity due to growing renewables market shares, will continue to put thermal generation under pressure, although, for 2016 falling gas prices are forecast to move spark spreads into positive territory in a number of countries, including the United Kingdom, Italy, and Spain[51].

In this scenario, we forecast utilities to continue to deleverage through disposals, and in particular municipal utilities to look for partnerships and aggregation to increase contractual power, supporting the pipeline of potential opportunities. In our view, the development of capacity markets should remain a key driver to support investment in the thermal generation space in the near future. Climate change policies will continue to support renewables, particularly in Germany, France, and the United Kingdom, where 2020 legal binding targets for electricity consumption generated by renewables are yet to be reached[52].

In our view, weak commodity prices should reduce consumer energy tariffs, and this might prove supportive, temporarily easing renewables subsidy affordability concerns and mitigating the risk of further political intervention or retroactive tariff cuts. Inflation is forecast to remain modest throughout 2016 in the Eurozone, while in the United Kingdom inflation might require longer to return closer to the BOE's target of 2%.

Low inflation is forecast to contribute in mitigating the risk of renewed political and regulatory intervention across the asset class, particularly in core European markets, where regulation predictability and transparency is higher. However, the low-inflationary scenario might prove challenging for networks, where regulation supports long-term income stability, but earnings growth is often linked to inflation.

Energy & Networks, average EBITDA margin (%, 2010-2017f)

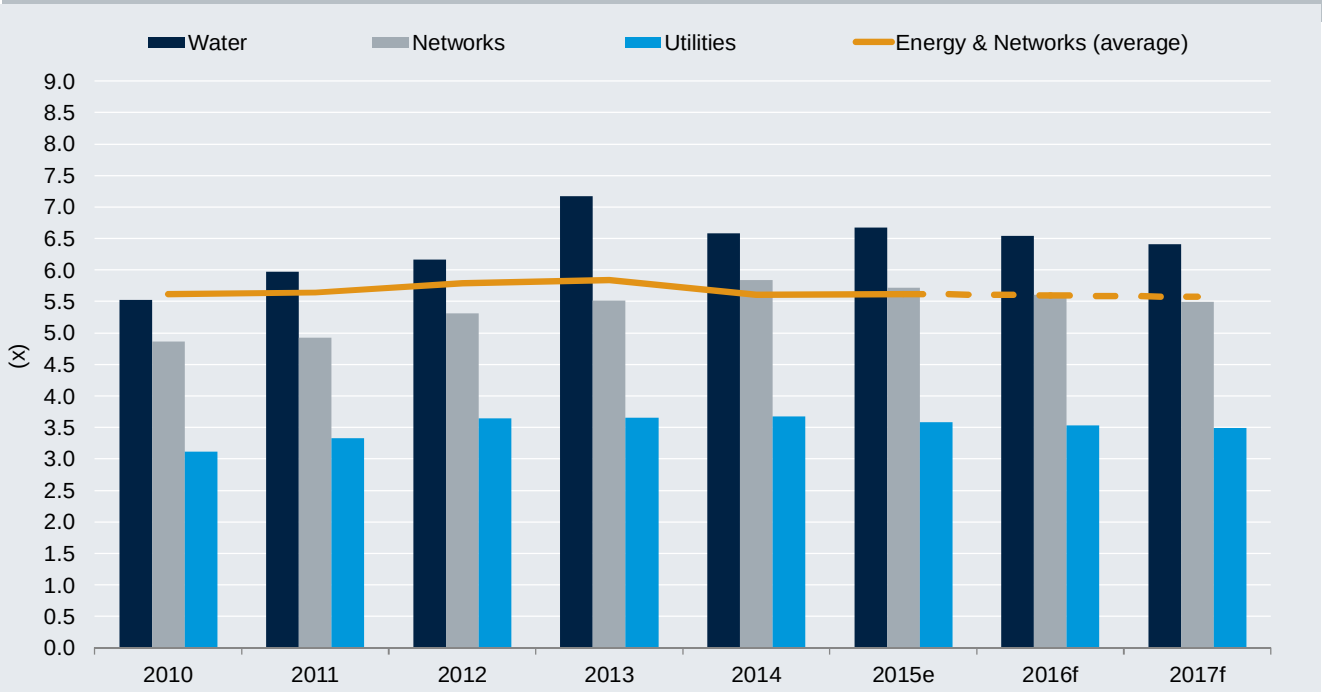


Source: Bloomberg, Deutsche Asset Management internal database based on a selection of European infrastructure listed peer companies' forecast, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

Financial Performance: The financial performance of the European energy sector is on average forecast to remain relatively stable for 2016[53]. EBITDA margins for European integrated utilities are starting to show some signs of stabilisation, as exposure to unregulated energy generation gradually reduced and business profiles are more exposed to stable, regulated networks.

[51] Bloomberg, Spark Spreads, January 2016.
[52] Eurostat, January 2016.
[53] Bloomberg, Deutsche AM internal database based on selection of European listed peer companies'forecast, January 2016.

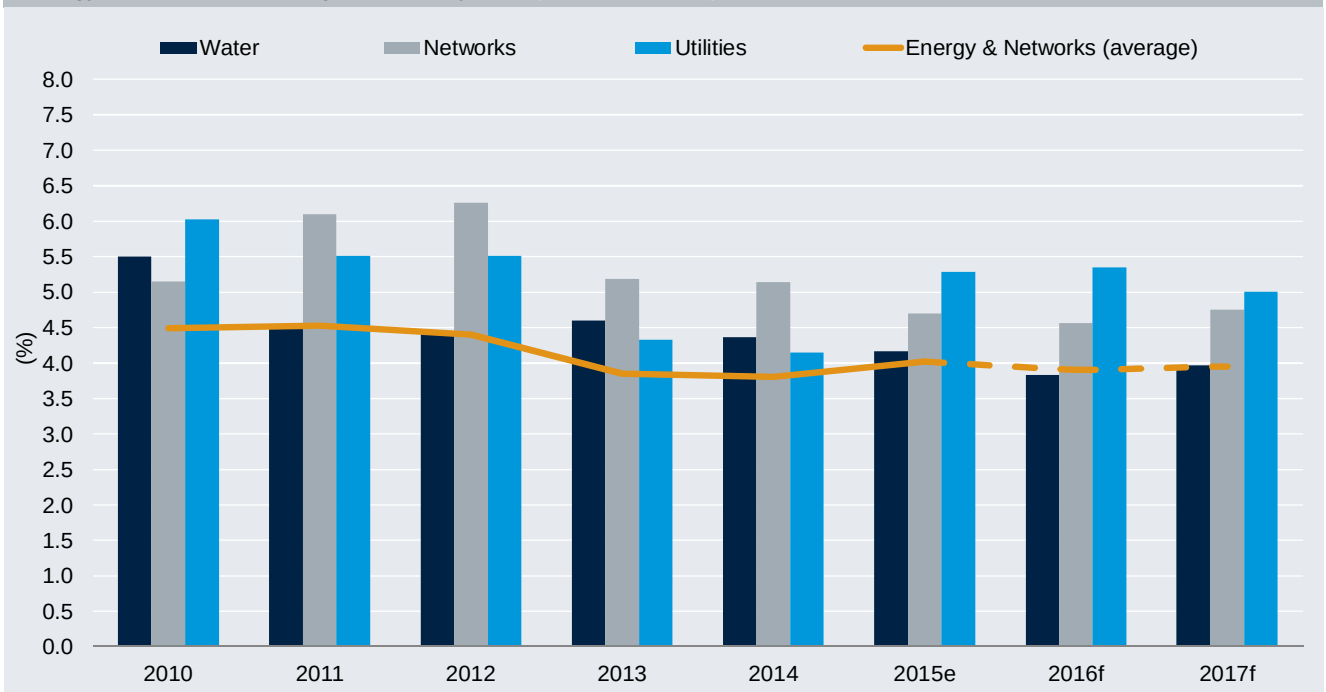
Energy & Networks, average debt/EBITDA (x, 2010-2017f)



Source: Bloomberg, Deutsche Asset Management internal database based on a selection of European infrastructure listed peer companies' forecast, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

In the recent past, integrated utilities have absorbed structural changes in the market through disposals and deleveraging, while limiting investment. We forecast deleveraging to continue for 2016[54], along with a consolidation in average dividend yields at about 5.5%.

Energy & Networks, average dividend yields (%, 2010-2017f)



Source: Bloomberg, Deutsche AM internal database based on a selection of European infrastructure listed peer companies' forecast, January 2016. Notes: e=expected, f= forecast. There is no guarantee that the forecasts will materialize.

[54] Bloomberg, Deutsche AM internal database based on selection of European listed peer companies'forecast, January 2016.

Strategic Recommendations: The energy sector remains exposed to material structural changes, offering potential investment opportunities, but at the same time requiring in our view a detailed understanding of power markets dynamics, and regulatory frameworks, as well as sector investment and asset management experience in order to mitigate risks through operational and financial asset management initiatives.

- **Renewables:** We remain positive for renewables investment in Europe. We forecast continued growth in 2016, and believe that investors should focus on France, Germany, and the United Kingdom, which represent core countries with limited risk of retroactive change to subsidy levels. The pipeline in these countries should continue to be sustained by binding renewable targets for 2020 and investment demand will be supported by stable subsidy regimes.

  Valuations for renewables investments are supported by high investor demand, particularly for operational assets. In our view, investors could focus on acquiring assets in the ready-to build or late stage development phase, where return prospects are higher, and where construction risks can be significantly mitigated for proven technologies, including onshore wind and photovoltaic energy generation.

- **Climate change:** In our view, climate change policies should support renewables in the long-term. In December 2015, governments from 195 countries reached a new international climate change agreement in Paris, set to enter into force in 2020. Countries agreed "to reach global peaking of greenhouse gas emissions as soon as possible" and the agreement aims to achieve carbon neutrality in the second half of this century[55].

- **Regulated networks:** Regulated networks continue to represent a defensive sector within energy, but capital appreciation potential tends to be more limited than in the unregulated space, and valuations reflect the defensive characteristics, particularly in core countries.

  We believe that investors focusing on networks could look at countries like Italy and Spain, where regulatory frameworks are relatively mature and support return visibility, but where competition to acquire assets can be lower compared with other core European countries, particularly in the mid-market.

  In these markets, regulated networks offer potential for consolidation and for the implementation of operational asset management initiatives. Moreover, as regulatory regimes continue to rapidly improve in these countries, in the medium-term valuations could benefit from capital appreciation.

- **Municipal utilities:** We forecast increasing consolidation activity for municipal regulated utilities in Europe, where privatisations might support the pipeline in the medium-term, and municipalities may increasingly look at partnerships with private investors to unlock investment needs, particularly in Germany and Italy, offering investors stable income return but some capital appreciation potential in the medium-term. Considerable privatisation potential exists at the municipal level in other European countries in the long-term, particularly for regulated networks, including water networks, as well as waste management[56].

- **Caution on thermal generation:** Although the development of capacity markets might prove supportive for the investment fundamentals of thermal power generation in Europe, particularly for gas generation, we believe that in the medium-term the sector remains vulnerable to the structural changes that the European energy markets are undergoing.

  The sector is particularly exposed to climate change policies, and changes to the European emission trading scheme may lead to a rise in CO2 prices, and impact profitability of thermal generators further in the medium-term.

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[55] European Commission, Historic climate deal in Paris: EU leads global efforts, December 2015.
[56] Deutsche Bank, Privatisation in the euro area, July 2015.

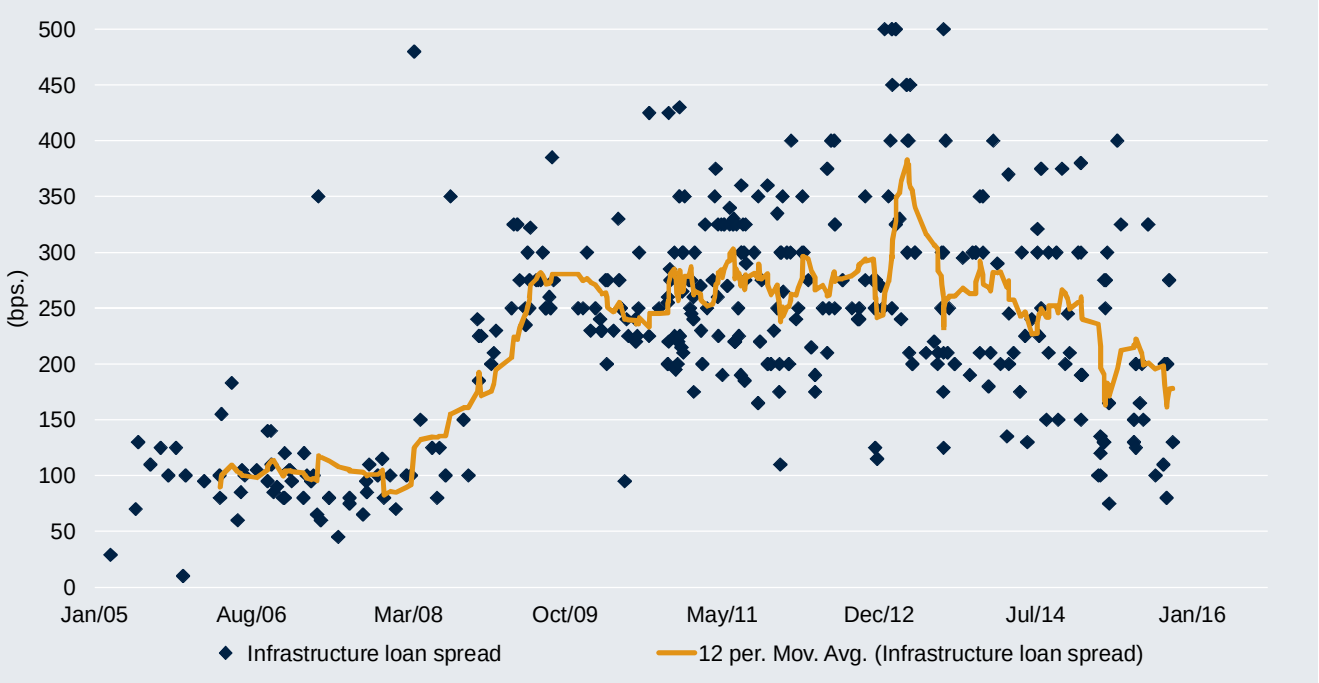
4.3 Infrastructure Debt

In recent years, the low interest rate environment in Europe has reduced the cost of funding, supporting lending to new infrastructure projects, to acquisitions and to refinancings. Investors have been driven to infrastructure debt seeking return premia over sovereign bonds and long durations, as well as diversification benefits and lower default rates compared to the corporate sector[57].

This trend, in combination with relatively high levels of dry powder and the sustained low interest rate environment has increased competition, resulting in a rise in asset valuations and a compression of spreads. In 2015, private infrastructure loan spreads reached on average 200 basis points, but in our view infrastructure in 2016 will continue to offer reasonable illiquidity premia over corporate bond spreads[58].

In 2016, high demand for infrastructure debt is set to continue, while the current macroeconomic context remains supportive for infrastructure investment, as investors are seeking exposure to real assets with inflation-hedging potential. Interest rates in the Eurozone are expected to remain low due to quantitative easing from the ECB and high bank liquidity, leading to low corporate bond yields and risk premia. In the United Kingdom, we believe that while rates are forecast to remain low in the first half of the year, the market might start adjusting towards the end of 2016, amid expectations for rising interest rates and funding costs[59].

European infrastructure loan spreads (bps., 2005-2015)



Source: Deutsche Asset Management proprietary transactions database, based on third-party market data, January 2016.

In 2016, the pipeline of financing opportunities in Europe is expected to be mainly driven by mergers and acquisitions and refinancing activity. In addition we see opportunities for greenfield projects in the renewables space, in particular offshore wind, as well as power transmission and transportation projects, particularly Public Private Partnerships (PPPs) for roads.

A number of regulatory changes are influencing investment in infrastructure debt positively, including Basel III and Solvency II. Under Basel III, banks are expected to reduce their appetite for long-term infrastructure

[57] Moody's Infrastructure default and recovery rates 2014, March 2015.
[58] Based on Deutsche AM proprietary database for private debt infrastructure transactions, January 2016.
[59] Oxford Economics, January 2016.

lending, and as banks retrench from lending for regulatory reasons, the decrease in debt financing available should fuel an increase in demand for alternative sources of infrastructure debt investments.

The reduction in capital charges for infrastructure following the recent amendment of Solvency II will have a major impact on the way in which European life insurance companies consider infrastructure debt as an asset class[60].

In our view, the recent regulatory measures should further support the interest of insurance companies in the infrastructure asset class in 2016. Growing interest from institutional investors for infrastructure debt should drive project bonds volumes as well as hybrid structures combining bank loans and institutional tranches.

Strategic Recommendations: In our view, infrastructure debt remains a growing asset class, and investors may benefit from the following strategies to maximise risk/return potential.

- **Private debt:** Private infrastructure debt remains supportive for investment strategies looking for alpha, illiquidity premia, enhanced lender protections, and higher portfolio diversification compared with fixed income securities.

- **Core infrastructure:** In 2015, we have observed that due to pricing dynamics, the definition of infrastructure has continued to evolve to include assets with good infrastructure risk profiles in less traditional industry sectors, but the expanding definition has also included assets with more volatile risk/return profiles.

  In our view, investors interested in core to core plus investment strategies should focus on assets that are secured, hard-asset backed, and with performance characteristics potentially resilient to the economic cycle. We believe that these assets are generally in the investment grade space, and benefit from lower default rates and potentially higher recovery rates, typical features of infrastructure corporate and project finance debt[61].

- **Credit Outlook:** While in our view the credit outlook remains stable for regulated networks, large utilities, and transportation in Europe, forecasting modest deleveraging in 2016, our outlook remains negative for the unregulated energy market.

  In our view, the combination of low energy prices, and rising interest rates towards the end of 2016 in the United Kingdom, and in the medium-term in the Eurozone[62], will exert continued pressure on the unregulated energy market, particularly in the high yield space, where we might observe rising price volatility and default rates in the medium-term.

  At the same time, investment grade rated corporates in the energy and utilities space should face a more stable credit outlook, due to more limited exposure to unregulated energy and lower leverage compared with the past.

[60] European Commission, "New EU rules to promote investments in infrastructure projects", September 2015.
[61] Moody's Investors Service, Infrastructure Default and Recovery Rates, March 2015.
[62] Oxford Economics, Current Forecast, January 2016.

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