SECOND GLOBAL INFRASTRUCTURE INVESTMENT INDEX 2014

Competing for private finance
Good infrastructure is critical for the long term economic development of a country. Key infrastructure assets create additional economic benefits by supporting urbanisation and industrial growth and providing better access to adjoining countries and stronger trade links. This, in turn, accelerates growth in GDP per capita and therefore the ability to derive greater financial returns. Underlying these needs are other core infrastructure requirements from energy generation and distribution systems to water supply, sanitation and social infrastructure such as schools and hospitals.
At a time when governments are struggling to finance major infrastructure investment, and traditional debt markets have been harder to access, the importance of encouraging private finance into infrastructure has become paramount. Governments need to remain globally competitive and support the social and economic objectives of the country, but don’t always have the financial capacity to deliver this. Fortunately for project sponsors, investors too are looking to diversify their portfolios beyond the equity markets that displayed such volatility post financial crisis. Infrastructure, with its long design life and strong demand platform, can offer this – as long as it is structured correctly and has the right level of political support. However, the pool of major funds that have the capacity to invest is limited, making it even more vital that markets seeking third party finance have attractive frameworks in place.

In addition, with limited budgets, we see a strong trend from owners to look to the total life cycle costs of their assets. This means that in some cases they will try to extend the life cycle of an asset by refurbishment of the infrastructure. In the case of building new infrastructure, we are seeing much greater attention to the total life cycle costs, leading to a more sustainable approach. Investing more in the beginning provides better value for money by reducing the costs in the years after construction. This trend is not only visible in the mature markets, but also in the emerging economies too.

To support this growing sector, Arcadis has created its second Global Infrastructure Investment Index (GII 2014) which highlights the most dynamic and attractive markets for infrastructure investment worldwide. There are, of course, specific risks in each market and the analysis in this report offers insight into the characteristics and opportunities in these countries. Investing in infrastructure involves investing in a country’s long term-growth prospects, meaning that the greater the potential, the greater the reward might be. Yet this has to be balanced against the risks and in many cases opportunities can be counteracted by risk, be that political, financial or regulatory.

Infrastructure investment models also require complex analysis from a financial perspective and vary from using debt and traditional borrowing to taking equity positions in development companies to capital market mechanisms. Strategies vary from market to market. Whatever the mechanism used, the typical infrastructure investors - pension funds, sovereign wealth and life companies - are ultimately seeking long term, stable opportunities and therefore the importance of understanding the asset life cycle and maximising operational efficiencies is vital.

Rob Mooren, Global Director, Infrastructure Arcadis
Executive Summary

The most attractive markets for investment in infrastructure combine strong growth potential and high levels of investment with low risk, business friendly environments. In general terms, as the index descends the risk profiles of the countries increase, so therefore, must the returns sought by investors.

- Singapore remains the most attractive market in the world for investment in infrastructure.
- The United Arab Emirates (UAE) has overtaken Canada to make the top three behind Qatar and Singapore thanks to its improved economic picture, including increased investment and household consumption.
- The USA and the UK have entered the top 10 for the first time, indicating improvements in their economies and for the USA in the growing need for investment in infrastructure.
- Asian markets such as the Philippines, Indonesia and Thailand are among the most improved countries for infrastructure investment. However, their higher business risks keep them in the second half of the index.
- Key Latin American markets have shown improvement: Mexico has seen its attractiveness increase thanks to efforts to stabilise the political structure and creation of new investment opportunities, and Colombia has seen foreign direct investment increase as its economy has expanded.
- Most European markets are becoming relatively less attractive because of their low growth profiles and limited investment potential.
- In order to maintain global competitiveness and enable investment in infrastructure, European countries could seek to stimulate more private involvement in asset financing and encourage governments to progress projects.
- Argentina, Greece and Venezuela remain at the bottom of the table due to issues around managing debt and high inflation. Argentina is dealing with a large current account deficit while Greece is managing structural overhaul in an effort to meet its bailout requirements. Venezuela’s nationalisation programme is also influencing investor appetite.
- Turkey’s score from 2012 fell more than any other country apart from Venezuela, dropping 3.6 percent from 2012 mainly due to economic factors.
We elected the indicators most pertinent to investors in infrastructure and gave them a weighting according to their importance. Most weighting goes to indicators of dynamism in countries with greater potential for growth and investment.

The Index

The Global Infrastructure Investment Index ranks the world’s 41 most dynamic countries with the greatest potential for growth and investment in their economic infrastructure. Economic infrastructure comprises the infrastructure that makes business activity possible such as transportation, communication, distribution and energy assets. A total of 26 individual criteria in five key areas are analysed and given a weighting which then creates an overall score for each market. The indicators selected are those most pertinent to investors when making an investment in infrastructure. Most weighting goes to indicators of dynamism but the overall blend creates the final ranking.

The five main indicators are:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Building blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Economy</td>
<td>GDP per capita, long term GDP growth, gross fixed capital formation, investment forecast, domestic market size, household consumption</td>
</tr>
<tr>
<td>2 Business</td>
<td>Ease of doing business, government regulations, transparency of policy making, prevalence of foreign ownership, legal framework efficiency, freedom from corruption</td>
</tr>
<tr>
<td>3 Risk</td>
<td>Political terror scale, political instability, inflation, strength of investor protection, cooperation in labour employer relations</td>
</tr>
<tr>
<td>4 Infrastructure</td>
<td>Quality of infrastructure, local supplier quality, ease of access to loans, global connectedness</td>
</tr>
<tr>
<td>5 Finance</td>
<td>Effect and extent of taxation, tax rate on profits, availability of financial services, financial credit rating, insurance</td>
</tr>
</tbody>
</table>

Data Sources: World Bank, World Economic Forum Global Competitiveness Index, Heritage Foundation, DHL, Economist Intelligence Unit, Business Monitor Index and Political Terror Scale (PTS)

Table 1: Results league table 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>OVERALL RANK 2012</th>
<th>OVERALL RANK 2014</th>
<th>DIFFERENCE</th>
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<td>Argentina</td>
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"Using our knowledge we help our clients to maximise the value of their investment in infrastructure."
Singapore remains the most attractive global market for infrastructure investment in this index. However, with a government which self-finances most major projects, investment opportunities are limited. As a result, other countries with major investment plans such as the Gulf States of Qatar and the UAE, alongside developing Asian markets such as Malaysia and the Philippines, are more promising for investors.

Comparing the results to the 2012 study, the biggest change at the top of the table is the improved rankings of the US and the UK—both of which have entered the top 10 by gaining three places in the index. In the UK, the biggest improvements were within the Business Environment indicators which increased by three percent, moving four places from seventh to third and the Economic Indicators which saw four percent growth overall—enough to move it up one space from 30th to 29th. The UK government has clearly proclaimed the country to be “open for business” but despite this, investors in infrastructure remain frustrated by a lack of long term clarity over infrastructure policy from a government, which expresses political intent but fails to back this up with action (see Europe section). Investment in energy projects and aviation has stalled due to the political paralysis which threatens not only the UK’s international competitiveness but also its ability to “keep the lights on” post 2015.

At the same time, the US has seen significant improvements in its infrastructure and economic environments, having made a three percent gain and moving its Infrastructure ranking from 12th to 10th. Key to this increased attractiveness is the ongoing economic stability and the huge investment needed in infrastructure. The American Society for Civil Engineers (ASCE) estimated in its latest report card that $3.6 trillion was needed by 2020 across 16 key asset sectors. With only $2 trillion in investment forecast the US is expected to increasingly call on private finance.

Other countries making significant gains on their comparative attractiveness in 2012 include South Africa, the Philippines and Indonesia. Asian markets in particular are generating a lot of interest among investors thanks to their large infrastructure construction programmes, coupled with strong growth potential. However, returns must outweigh the business risks, which are significant, including corruption. Attempts to tackle this are ongoing and success in this area would see these countries rise further up the index.

By analysis of total overall scores, Colombia recorded the biggest increase in performance with a 6 percent rise compared to 2012. This reflects the strong economic expansion that the country has recently experienced with increased foreign direct investment over the past few years. Investment as a percentage of fiscal spending has grown from 10 percent to 15 percent in the last decade. In the main growth has been driven by the oil and gas, mining and agriculture sectors. According to the Colombian Oil Association a further $120 billion in investment is required over the next decade, highlighting vast opportunities for construction players.

In many cases, economic slowdown can be held partially responsible for the drop in performance of countries that have slipped down the index. Turkey’s descent by four places has fallen by 3.6 percent. However the analysis shows that household consumption in the country has fallen massively—implying that its investment plans, of which there are many, are no longer affordable.

Chile saw the economy slowdown, although it remains the most attractive South American market for investment with greater transparency and less corruption than its neighbours.

European markets saw their relative attractiveness drop and some are struggling to find the investment needed to upgrade their ageing infrastructure. Others have funding but are seeing a lack of commitment from their governments to progress projects. This leaves them with the choice of doing nothing which means further deterioration in condition and effectiveness of infrastructure, or they could stimulate longer term private finance. (see Europe box).
ASIA PACIFIC

It is not surprising to see Singapore continuing to be a world leader in terms of attractiveness to investors. It is one of the few places in the world where there is a truly integrated strategic plan which links infrastructure planning with business and social requirements. The government is very pro-business and in terms of value of built assets (see Arcadis Global Built Asset Wealth Index) the country has the highest value per capita in the world at US$215,000. This demonstrates the commitment to infrastructure investment pursued by the government to promote the quality of life that its population requires.

As part of its long term plan the government wants to increase Singapore’s population from 5.5 million to 7 million by 2030 and it has planned the infrastructure accordingly. This means doubling the length of the Singapore Mass Rapid Transit (MRT) system to 360km, building new airport terminals and a third runway as well as relocating the main container port to Tuas in order to almost double container capacity and free up prime development land. Singapore’s affluence means that opportunities to invest are however limited as mature government entities finance and manage major projects. One foray into private investment to date has been the Singapore Sports Hub, a 35 hectare complex including a new 55,000 seat National Stadium which opened in June 2014. A consortium of international companies including equity investors, contractors, event organisers and facilities management firms delivered the project under a design, build, finance and operate (DBFO) structure for client Sports Singapore. However, this kind of opportunity is limited and investors have turned to more commercial investment in property as a way to capitalise on the country’s growth potential.

As a result, other countries in Asia offer more opportunities for investors in infrastructure. Neighbouring Malaysia for example, which ranks seventh in the global index, is using its 10th five year development plan (2011-2015) to build infrastructure which promotes economic growth and productivity. It is also actively seeking to improve the business environment and attract more foreign investment. It scores highly across the investment criteria, with its economic ranking improving from 11th in the index in 2012 to seventh in 2014. Investment plans include a high speed rail link to Singapore, major investment in roads, rail and ports and upgrading Kuala Lumpur International Airport along with other aviation spending.

Other Asian markets such as Indonesia and the Philippines also offer major infrastructure investment opportunities and governments are actively encouraging the private sector to take a delivery role, however they are higher risk from a business perspective. Suggestions of corruption have historically stifled investor involvement and keep these markets in the second half of the index at 23rd and 29th respectively. However both countries have moved up three places with the Philippines in particular showing major economic improvement since 2012.

By economic ranking alone the Philippines ranked 19th in 2012 and has moved to 12th in 2014 thanks to increases in internal investment and household consumption. What is more, the country has taken a proactive stand on corruption with President Benigno Aquino III actively pursuing an anti-corruption agenda. A dedicated PPP unit is now engaging private finance models as a route to getting infrastructure on track. Investment is needed across all sectors from power and energy to transport, water distribution and social infrastructure.

Indonesia too has massive infrastructure needs, among the biggest in the region. It is seeking to become one of the 10 largest economies in the world by 2025 and has produced plans that list over 900 priority infrastructure projects. Despite this, investors will remain cautious until alleged corruption is tackled and until then, they should look make use of skills and insight available to manage and mitigate risks which have the power to outweigh potential returns.

China remains in the top 20, moving up one place to 17th in the ranking. Its dynamic domestic market, including its population growth and accompanying increases in urbanisation plus the rise of the middle classes, particularly in the Western region is leading to higher consumer consumption, which increases its attractiveness to private investors as the need for infrastructure to facilitate growth does not wain. Government transparency and the ease with which foreign investors can invest in infrastructure projects in China still lags some way behind its Asian neighbours, Malaysia and Singapore.

“Urbanisation is exerting massive pressure on Asian infrastructure leading to a need to invest US$11.5 trillion according to HSBC.”

ASIA PACIFIC RANKINGS

1 Singapore
7 Malaysia
9 Australia
15 Japan
17 China
20 Thailand
21 Korea (Rep of)
23 Indonesia
25 India
29 Philippines
37 Pakistan

“One of the highlights of the region is the Philippines - they are embracing PPP as a route to getting infrastructure on track and they have taken a proactive stand on corruption.”
**Middle East**

The most dynamic infrastructure investment markets in the Middle East are located in the Gulf with Qatar, the United Arab Emirates and Saudi Arabia all scoring in the top third of the index. These cash rich, economic powerhouses have some of the highest investment profiles of anywhere in the globe with average growth in construction services reaching double digits.

Despite their cash-rich, hydrocarbon enriched positions these countries are all experienced in harnessing private investment, with the UAE and Qatar in particular having relied on access to cheap debt to finance investment. Looking ahead, there are expectations that governments will seek to diversify funding streams further, accessing capital market finance to support spending plans. The power sector is particularly mature in this regard with the Middle East having a long history of Independent Water and Power Projects (IWPPs). In August 2013 Ruwais Power Company in Abu Dhabi secured $825million in project bonds to support its Shuweihat 2 power and desalination plant refinancing, a move that Standard & Poor’s says could kick-start project bonds as a finance mechanism.

Access to finance will be critical as these countries scale up investment. In Qatar and the UAE in particular, national vision strategies combined with major international events have led to expectations of phenomenal peak spend in the next 4-5 years. Almost half of the investment planned relates to transportation, with every major city in the region planning to follow Dubai in building a metro system with lines being constructed simultaneously in a relatively short period of time. At the same time ports, airports and a heavy rail network are all under construction leading to increased competition for resources. The key risk in these markets therefore is inflation in construction resources from manpower and specialist skills to construction commodities.

In its "Qatar: Avoiding the Inflation Bubble" report from 2012, Arcadis predicted that inflation could reach 18 percent between 2016 and 2019. However, given overall investment levels around the region mean up to 20 percent construction inflation is more probable. This is compounded because of the firm deadlines around projects related to Qatar’s 2022 FIFA World Cup and Dubai’s 2020 World Expo.

Although not planning to host global events, the Kingdom of Saudi Arabia has its own unique drivers for pursuing infrastructure, including the young population and need to diversify its incomes beyond oil and gas. Its population of 29.2 million makes it the largest market in the Gulf and with half of the population being under 25 there is a pressing need to create jobs and opportunities for future generations.

The Kingdom is seeking to grow the private sector and stimulate more job creation; however, higher political risks detract from the attractiveness of the financial and economic indicators.

What the three Gulf countries have in their favour is their clear vision strategies delivered through five-year investment plans which do offer certainty to investors. Their strong credit ratings and enviable taxation regimes will continue to appeal to investors despite the potential for rising inflation.

**“Construction inflation is the biggest risk in these markets with earlier predictions of up to 18% in Qatar looking conservative.”**

**ANALYSIS BY REGION**

“National Vision Strategies are driving a phenomenal peak spend in key markets over the next 4-5 years, increasing investment opportunities for the private sector.”

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**MIDDLE EAST RANKINGS**

2. Qatar  
3. UAE  
12. Saudi Arabia  
33. Egypt
Over the last 35 years, the Kingdom of Saudi Arabia has developed from being one of the poorest countries in the world into one of the most affluent, fuelled by development of its vast oil reserves. Up until the early 2000s this wealth had not dispersed into the wider economy. However, over the past decade the Kingdom has focused its investments on creating a diverse yet sustainable economy. This is achieved through the implementation of its five-year development plans of which the current 9th plan has seen $385bn invested between 2010 and 2014. The 10th plan is now under development.

Saudi Arabia’s ‘Saudization’ policy is the national plan to encourage employment of Saudi nationals in the private sector, which is largely dominated by expat workers. If the government continues to encourage Saudization, there could be a slowdown in infrastructure development (i.e., if they don’t allow outside South East Asian workers to support with the built developments, this will cause a delay).

In the wake of the Arab Spring, a boom in a population has been a main driver behind a number of Saudi infrastructure investments, many of which are directed at energy, transport and housing. The combination of more people, lower tariffs and inefficient electricity use has inflated electricity consumption, creating major shortages and blackouts. This has spurred the government into action with plans to spend $80 billion (excluding nuclear investment) on increasing power capacity over 10 years leading up to 2018. Saudi has a mature private finance market for Independent Water and Power Projects (IWPPs) and is looking at using the same model in the renewable power sector.

Growing religious tourism and population numbers also mean that the transport framework has been placed under extreme stress. Government infrastructure programmes such as H212, a $16.5 billion project that will upgrade the transport system in Mecca, and a new metro for the capital city of Riyadh, along with extensive investment in heavy rail are focused on addressing this problem. Other initiatives include expansion of both international and domestic airports which has seen the country introduce the Build-Operate-Transfer arrangement saw the concessionaire TIBAH raise finance worth $1.2 billion from local Saudi banks.

These initiatives have some threats attached to them. The first is the dominant force of state over private investment. This can lead to slow inefficient construction processes due to unpredictability and bureaucracy. The slow build speeds are compounded further due to the country’s struggle with national unemployment and an unskilled labour force.

Europe

European countries present a mixed picture in their attractiveness to investors. At the top of the table low risk markets like Sweden and Norway remain stable at fifth and sixth compared to 2012. Both have highly efficient business environments with transparency in regulation and efficient legal systems. Sweden ranks as the least corrupt country in the index. However, both countries have small populations and high construction costs (see Arcadis International Construction Cost report) resulting in limited investment potential.

Of the middle ranking European countries, the UK ranks highest at number 10, improving three spaces from its ranking of 13th in 2012. Marginal improvements across all business indicators and an improved financial and taxation environment increased its overall score. However, investors remain frustrated by a lack of long term clarity on infrastructure policy from government, which expresses political intent but fails to back this up with action. Investment in energy projects and aviation has stalled due to the political paralysis which threatens not only the UK’s international competitiveness but also its ability to “keep the lights on” post 2015 as its ageing power stations are decommissioned. Politicians have shied away from making policy decisions because they know that this will increase the costs to consumers, regardless of the models implemented to finance the much needed new assets. In addition, the regulatory model in key sectors is becoming overly prescriptive.

Case Study: Saudi Arabia - Ranked #12

Development plans seek to stimulate economic diversity
Similarly, the UK’s inability to clarify its aviation strategy is a deterrent to securing the investment to enable the UK to maintain a competitive position in this sector. Neighbours in Europe such as Holland, France and Germany have taken a very assertive approach by expanding airports such as Amsterdam’s Schipol and Paris’ Charles De Gaulle. However, these countries have other issues to contend with.

Sitting in the middle of the table, Western European countries, in general, are lacking government commitment to progress projects which remain in the pipeline and need to upgrade their ageing infrastructure. This leaves them with the choice of doing nothing, which means further deterioration in condition and effectiveness of infrastructure, or they could stimulate longer term private finance. This could mean either embarking upon a series of part privatisations akin to the UK experience or following the example of cities such as Los Angeles and Chicago who have used their credit worthy status to raise bond issues to spend on infrastructure investment plans.

These are very real options which would increase the competitiveness of stable and attractive investor markets like Germany, Austria, Belgium and France. However, countries lower down the table with dire financial issues such as Italy, Greece, Portugal and Spain are more likely to be forced down a wave of privatisations just to keep services running. Greece, for instance, through the Hellenic Republic Asset Development Fund, has already begun to privatise its 37 airports.

A more surprising result from the index showed Turkey moving down four places from its 2012 result to rank at number 28. The analysis shows that household consumption in the country has fallen massively implying that its investment plans, of which there are many, are not affordable. While investment in infrastructure would certainly stimulate the economy, investors will want to see higher rates of return to offset their risks, with government guarantees on the revenue streams.

**CASE STUDY**

**United Kingdom - RANKED #10**

Development plans seek to stimulate economic diversity

The economic climate has had a significant effect on infrastructure investment in the UK, forming a very cautious environment. Over the last five years, the UK has experienced a negative cycle. Without infrastructure investment, a key driver of growth, confidence reduces further which leads to even less investment. Optimism is now showing signs of rising and the government has identified an opportunity to act and support predominantly privately financed infrastructure programmes. It plans to increase its capital spending by £3 billion per annum from 2015-16 which means £18 billion additional investment by the end of the next Parliament, with a spending of over £300 billion over the parliamentary period.

A top 40 priority project list was developed through the National Infrastructure Plan 2011 but it reads more like a wish list than a strategic plan. Very few of the projects have got underway with 80% yet to start.

The main issues are concentrated around credit availability through the recent recessions and the government’s lack of policy commitment to create an attractive environment for investment. Private investors that support most projects need greater security to commit to large, long term investments and the government has failed to put the policy levers in place that are needed to support this. The government is looking to aid this through the UK Guarantees Scheme, which could provide up to £40 billion (underwritten by government) in guarantees to ensure that priority projects in the infrastructure pipeline can raise the finance. This is just the foundation and a collective commitment throughout the economy will be needed to create a significant stimulus for infrastructure growth.
“Due to the great need for investment in infrastructure the US is gradually becoming more open to the idea of PPP. Things are being achieved that would not have been possible 10 years ago.”

Americas

The USA has moved up three places to eighth in the 2014 GII report compared to its score of 11th in 2012. Underlying this improved performance is a growing need to rehabilitate and upgrade existing assets estimated by the American Society of Civil Engineers (ASCE) at $3.6 trillion by 2020. This is a 64% increase on the previous estimate of $2.2 trillion made in the same report of 2009. At the same time, forecast infrastructure investment is $2 trillion during the same period leading to a significant shortfall. To bridge this $1.6 trillion gap municipalities and city authorities have begun to turn to the private sector and are embarking on a range of private investment models.

Such infrastructure investment mechanisms vary from state to state and this is an important aspect of the current situation. The transport sector in particular is suffering from a lack of federal support and poor local infrastructure is pushing local officials to seek alternative finance options. Previously unpopular models, such as private sector financing of road lane extensions for newly created toll routes, are becoming more acceptable as the general public realise that federal money is not forthcoming. This is also leading to a growing acceptance that better infrastructure is beneficial for the local economy. As a result, we expect to see more of this type of financing in the roads sector.

At the same time the economic environment in the US has been stable for a couple of years now making the market more attractive than it was just 18 months ago. Cities have been able to raise bond finance, which is particularly attractive for new build infrastructure, rather than maintenance of assets.

Overall the ASCE finds that the US infrastructure quality is rated at D+ in terms of its quality. This is a marginal improvement on the 2009 study where it was rated D, but what this really highlights is the huge need for investment in the US. As the gap between federal support and investment needs widens, private finance is increasingly being sought to fill the gap at a state-wide level.

For the dynamic markets of Latin America a range of factors are influencing the attractiveness of investment in infrastructure. The largest market in the index is Brazil with a construction market valued at $107.2 billion in 2013 driven by the growth acceleration programme (PAC II). This huge programme has seen $773.4 billion invested in infrastructure between June 2011 and December 2013. Successful schemes include the Minha Casa Minha Vida (Housing) and Luz para Todos (Power & Light) which are contributing to a better quality of life for the low income population. On the other hand programmes related to better infrastructure such as ports, airports, roads, metros and trains have not progressed as planned. Some investments were postponed in response to the economic slowdown in China and could resume when stronger winds blow again from the East. On top of that, changes in economic policies have not been too attractive for new investments from abroad. The GDP growth has been a disappointment for a government that is trapped behind its inadequate policies.

Whilst Brazil’s economy is starting to reaccelerate, Brazil’s ranking is relatively low in the index. PPPs have progressed quite well and it is typical for concession arrangements to be used for private investments in power and oil and gas. However, the complexities of government bureaucracy make processes slow and inefficient. Without further relaxation of regulation and a reduction in administration, Brazil’s infrastructure plans may be prevented from becoming a reality which will prove a hurdle in making the country more attractive to infrastructure investors. Other South American countries ranking higher include Mexico (26), Colombia (27) and Chile (13).

Chile places relatively high in the table but its potential is limited by its size. In 2013 its construction market was estimated to be worth $41.8bn but this is highly concentrated in mining, meaning that the economy fluctuates dramatically. More opportunities exist in Mexico which has gone through a process to stabilise its political structure in order to attract FDI and has outlined infrastructure investment plans worth $300 billion over the next six years. Three main political parties continue to keep a permanent check and balance system for legislative decisions. As a result, continuity of economic policies through the past two governments has been a positive differentiator.

Mexico’s regulatory environment has created new opportunities for investors, particularly in the energy sector. Recent legislative changes in the oil and gas market have opened up the potential for foreign investment in oil production, crude refining, and other forms of energy production and distribution. Low labour costs and a developed manufacturing sector continue to attract foreign direct investment and sophisticated financial markets and banking system generate trust for the investors.

Such changes have led to Mexico increasing its score since 2012 and moving up one ranking in the table, as has Colombia (see country case study), which is currently one of the more attractive countries in Latin America for investors.
“Mexico has more than $300bn in investment planned over the next six years and is attractive to multinationals who use it as a base to serve both Latin America and the US.”

CASE STUDY
Columbia - RANKED #27

Colombia has moved up in the GIII from 28th in 2012 to 27th in 2014 and this is reflective of the positive trend towards strong economic expansion over the past few years, levered by foreign direct investment. As a percentage of fiscal spending, investment has grown from 10% to 15% in the last decade. Colombia’s construction market, which was valued at US$62bn in 2013, has benefited from a $2.7bn fiscal stimulus plan in housing and roads and the sector overall is expected to grow at 7.5% per annum. This growth is mainly being driven by the oil and gas, mining and agricultural industries. The Colombian Oil Association estimated the need of US$120bn in investment over the next decade, highlighting the opportunities for construction players.

The country is also seeing a trend towards export diversification in both products and countries and a trend for capital goods imports. Local and foreign investment have pushed forward various industries in Colombia.

Politically, ongoing peace negotiations with the rebel group Fuerzas Armadas Revolucionarias de Colombia (FARC) has controlled violence better and raised the perception of security. The current administration has assured a broad continuation of the development programmes of previous governments centred at political stability. This year’s presidential election is the only issue currently distracting Colombia from its rising track.

Overall, Colombia is currently one of the most attractive countries in the Latin America region for investors looking for rich natural resources, high potential for development, growing urbanisation, growing investment and positive ratings.
“If governments want to accelerate investment in infrastructure they need to have a dynamic project finance market to deliver ring-fenced assets.”

Structuring infrastructure projects in a way that attracts finance is vital for sponsors and investors alike. In the project finance sphere, mature markets like Canada, Australia, the US and the UK have sponsors that understand the pricing of assets, are aware of the rates of return expected and appreciate the key risks involved, making it easier to attract infrastructure investment. These markets have experienced the early challenges of introducing PPP and PFI and have learned what to expect from both an investor and political perspective. The legal frameworks are in place, the accountants are experienced and the sponsors are aware.

Project finance market requirements:
- Clear legal basis for project finance style deals
- Long-term bank or bond market
- Contractors with skills and balance sheets capable to stand behind risk transfer
- A market understanding of risk pricing by both government and private sector

In addition to the structural and legal requirements, markets need a strong and capable supply chain to reduce the development risk and be attractive. The Global Infrastructure Investment Index assesses supply chain competence within the quality of infrastructure criteria and finds that Japan, Western Europe and North America currently have the strongest supply chains in place. For risk to be low this needs to be strong throughout the project cycle from clients and technical advisors through to contractors and operators.

Of course every global market is at a different stage of the private finance journey with some having focussed on roads, ports and airports, and others having used private investment in the power, energy and social infrastructure arenas. Whilst a country might have good project finance experience this may be in a limited sector such as roads, making an emerging opportunity in power or hospitals a different risk proposition. Conversely, another country may have less project finance deals completed overall but has good experience in the particular sector that key investors are keen to support.

This experience means that these countries will have strong legal structures in place which the GIII assesses within its analysis of the business environment.

More mature markets, however, can have their own specific risks. International investors considering investment in established project finance markets can find themselves up against strong local funds, backed by solid local supply chains, leading to fierce competition. To their advantage, however, international firms are able to harness best practice from leading markets in the operational efficiency of assets, which is a key component of the bid pricing. In many cases this is something that the local market doesn’t have the experience to price in and can have a huge impact on returns.

Maximising operational efficiency is also a vital tool for investors who prefer to go along the corporate finance route, either by investing in concession companies or asset owner/operators. Bringing best practice in to infrastructure at operation and maintenance phase can significantly increase returns and reduce risks of maintenance issues.

Table 4: Top 5 rankings for infrastructure investment by supply chain strength

<table>
<thead>
<tr>
<th>Country</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan, Austria</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>2</td>
</tr>
<tr>
<td>Belgium, Netherlands</td>
<td>3</td>
</tr>
<tr>
<td>Sweden</td>
<td>4</td>
</tr>
<tr>
<td>USA, Canada, Norway</td>
<td>5</td>
</tr>
</tbody>
</table>

Data source: GIII
Note: Countries with same score given equal ranking
Manufacturing capacity for a global telecoms organisation had grown rapidly resulting in nine facilities across Europe, Asia, South and Central America. This had resulted in a disparate and localised approach to site facilities management, presenting an opportunity to increase cost effectiveness through adopting a global, corporate approach. Arcadis recommended a facilities management strategy linked to corporate objectives was introduced along with standardised key performance indicators, operating procedures and streamlined maintenance strategies.

The results included:
- A four-fold return on investment within the first year
- Energy saving of 13.3 GWh over the first four sites during the first nine months delivering a cost saving of €1,017,000 equivalent to 7,153 tons of CO²
- Total projected energy savings following full implementation across all 9 sites of £4 million per year, saving approx 30,000 tons of CO²
- Additional savings are expected arising from reduced production downtime as a result of facilities failure, and increased maintenance cost-effectiveness

The UK’s Thames Water (TWUL) needed to achieve a step-change in delivery of its capital spending programmes moving into the 6th five-year regulatory period known as Asset Management Period 6 (AMP6). Its challenge was to attract and procure the best organisations and people in the industry ahead of the market to help it deliver capex certainty. Working in a joint-team with their Capital Procurement team we took accountability for the development and delivery of the procurement and commercial strategy.

The results included:
- A Thames Water AMP6 Alliance was appointed two years ahead of the regulatory period, enabling their input into the regulatory business plan submission
- The client is 1-2 years ahead of other water companies in terms of appointment of delivery partners enabling early contractor input into programme management, and standardisation
- The approach has been recognised as an industry first in the wider utility sector

For investors each infrastructure asset type creates a different set of risks and returns. Popular classes today include power generation facilities, toll roads and bridges, tunnels, ports and airports. From a project finance perspective ring fenced assets where the costs and revenues can be clearly proven is vital. A classic example of this would be a power station where the off-taker, usually the government, guarantees the off-take price of the power for a fixed term.

Ports and airports generally do not give the same guarantees of returns but the understanding of freight and passenger traffic that is inherent with aviation satisfies the analytic approach sought by investors and can make these assets a sound proposition.

A number of airports internationally have proven the model can be profitable from BAA in the UK to Macquarie in Sydney and airports in Europe, Asia and the Middle East are all considering more private involvement.

A railway is different again and can’t be ring fenced in the same way. Predicting revenues is challenging and developers will not want to take on this risk. At the same time governments are unlikely to want to provide this sort of guarantee. This then means that alternative financing routes are more likely such as investing in the operating or concession companies once the asset is delivered and operational. Going along the corporate finance path is common in the utility sector and opens up new risks from the regulatory perspective. How will the regulators treat the industry?

In politically fraught areas there is the risk that the regulator becomes a champion for consumers and places limits on the rewards available to investors. It may be the case that investors look to invest in supply chain capabilities where the scale of magnitude in key markets means that opportunities are opening in the companies delivering the infrastructure. Take nuclear new build in the UK. Do you invest in the international developers rather than the sites themselves? Certainly this is one way of mitigating risk.

Whatever approach is taken, cost benefit analysis is vital and understanding of this has improved for major infrastructure. The introduction of even wider policy-led multi-criteria benefit analysis is also an interesting development which encourages transparency and collaboration between stakeholders and assessment of ‘softer’ social benefits.
Unless there is a clear infrastructure planning strategy that highlights what outcomes will be focussed on, what the priorities are and how this will be delivered, the market cannot respond with confidence.

Investors are turning to this asset class for long term, predictable rates of return with low volatility. Fluctuations in equity markets are driving these traditionally long term investors such as pension funds to look at major infrastructure as an important part of their portfolio.

Bringing in private investment can be hugely beneficial to project sponsors too - even in cash rich markets that have the ability to self finance. The due diligence that comes with third party validation can be really powerful and the arrival of private investors builds more interest and confidence in the market which could then effectively go solo over time. For example while countries in the Gulf are cash rich, creating incoming investment is how they will get a bigger industry going, which is hugely important for their plans to diversify their economies away from being pure hydrocarbon plays.

One of the real problems that many countries have though is the lack of clarity over long term investment plans. Asian markets are arguably the best in the world at stating their infrastructure strategies and linking these to economic development. European countries are much less clear partly due to the huge legacy of infrastructure assets that also have to be considered. However the important thing to note is that unless there is a clear infrastructure planning strategy, which highlights what outcomes will be focussed on, what the priorities are and how this will be delivered, the market cannot respond with confidence. When project sponsors get it right there is nothing more powerful than a government saying “this is the plan and we are going to stick to it” - it breeds the most incredible investor confidence.

This is true for both direct and indirect investment. On the corporate side concession companies want to see a clear programme timetable and shortlists which are just that. Bidding against a large number of companies in a process which is likely to cost several million dollars is not attractive for investors. To be one of three is something, to be one of eight is quite another.

Apportioning risk along the project cycle is another key area that sponsors seeking private involvement must be wary of. Transferring as much risk as possible to the private sector has been a feature of many markets and is certainly one way to increase the project cost from the outset. The key is getting the right risks transferred at the right time. Investors don’t want development risk. Project sponsors should also consider whether complex major projects could be government financed for the early phases of planning and construction before refinancing at the construction delivery or operational stages. By bringing in the private sector at this point capital can be released and private sector efficiency gained in terms of managing the infrastructure and/or service. While this may seem simple, the important point is that it provides clarity and leaves construction and political risk with the parties best able to manage it.

Plans for a second high speed rail line known as HS2 in the UK are a good example of the risks facing investors. Right now, the project which involves connecting the north of England into London, is seeking to gain political support, getting a hybrid bill through Parliament and dealing with local planning issues. This represents a hugely complex stakeholder management and master planning exercise involving an entire regional economy and that is very much a politically driven process. Government is by far the best entity to sponsor that and drive it forward. When it goes into construction and then operation and delivery it becomes completely different risk proposition. Only in the later stages can the project exhibit the low risk steady returns and securitised cash flows that can appeal to the pension funds. Investors want real clarity that everyone understands how these things change over time.
Singapore remains the most attractive global market for infrastructure investment according to the results of the second Global Infrastructure Investment Index. However this cash rich market represents limited opportunities as government self finances major projects. As a result, other countries with major investment plans such as the Gulf States of Qatar and the UAE, alongside developing Asian markets such as Malaysia and the Philippines are more promising for investors.

A key differential that Singapore, and to a certain extent other Asian and Middle East markets, has is a clear integrated strategy that ties the infrastructure development plans to business and economic objectives. This gives long term clarity to investors and is something that European markets, in particular, would do well to emulate if they are to succeed in attracting more private finance into infrastructure. For cash strapped governments, gaining more private involvement in infrastructure would be one way to prevent stagnation of assets and stimulate the economic growth associated with infrastructure improvements. Analysis by the Global Infrastructure Investment Index shows that Western European markets offer attractive business and risk environments for investors. However, their lack of infrastructure investment and economic woes have resulted in several countries slipping down the index compared to 2012. Moving forward, investors are not shy of financing innovative products and services, but any sign of political meddling or uncertainty and the deals could collapse. If the political landscape is right, the potential for infrastructure as an investment class is significant. Project sponsors, however, must be clear about where the boundaries are, what they will and won’t change and what risks are being taken.

Markets that have created the right political environment can demonstrate the economic fundamentals required to sustain long term growth and have attractively structured infrastructure schemes will stay ahead of the competition when it comes to attracting the pool of international investors who are increasingly considering this asset class.

“Our need for high quality infrastructure is growing ever greater and it is not about more of the same, it is about more for less.”
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