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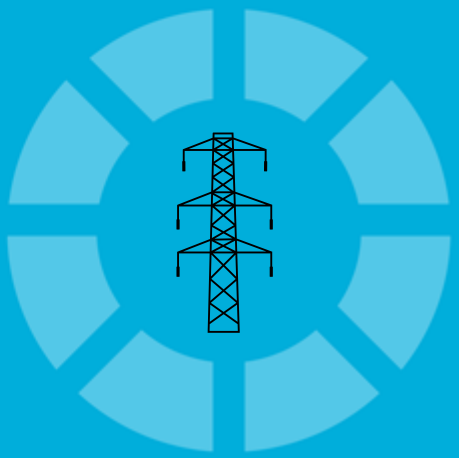
IRAN

INFRASTRUCTURE REPORT

INCLUDES 10-YEAR FORECASTS TO 2023



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Iran Infrastructure Report Q2 2014

INCLUDES 10-YEAR FORECASTS TO 2023

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Business Monitor International
Senator House
85 Queen Victoria Street
London
EC4V 4AB
United Kingdom
Tel: +44 (0) 20 7248 0468
Fax: +44 (0) 20 7248 0467
Email: subs@businessmonitor.com
Web: http://www.businessmonitor.com

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BMI Industry View

BMI View: *Our outlook for the Iranian construction industry in the short- to medium is turning more optimistic. Although we estimate there was a contraction of 1% in real terms in 2013, we forecast the industry to grow by 1% in 2014 and by an average of 3.8% over the next five years. Our more positive outlook is based on reduced economic sanctions from the West with regards to Iran's nuclear programme, low base effects, and a high demand for infrastructure projects. There are, however, high risks associated with the country's challenging macroeconomic picture and its weak business environment.*

The Islamic Republic remains a country of pronounced risks, including political instability, economic challenges and social tensions, and we believe the current situation is unsustainable in the long term. Despite a spike in oil prices, the latest wave of US energy sanctions and the EU oil embargo have taken its toll on Iranian oil production and consequently the economy at large. With the oil and gas industry accounting for an estimated 70% of the country's total exports, the government will be forced to cut public spending further.

Key developments in the industry:

- In January 2014, Iran and the so-called P5+1 countries - China, France, Russia, the UK and the US plus Germany - reached an understanding on the implementation of a deal reached in November 2013. The accord starts a six-month timetable to reach a final agreement on the nuclear programme. Although the signing of the interim accord is a positive step in negotiations that could help attract foreign investment for infrastructure projects, significant challenges remain.
- The Central Bank undertook a de facto devaluation of the *rial* in July 2013 from IRR12,260/US$ to IRR24,779/US$. This will have an adverse effect on the availability and cost of imported capital goods, exerting yet more pressure on construction company profit margins.
- In the residential sector, the current administration led by President Hassan Rouhani has put a stop to the Mehr plan, a move which will likely encourage private sector companies to step in and contribute to a gradual decline in housing costs.
- We have seen progress on the US$450mn Iran to Iraq gas transmission pipeline. Although the pipeline was expected to be completed already, the section in Iraq was delayed as a result of unstable security and property issues. In fact, 15 Iranians and three Iraqi workers were killed in a pipeline attack in December 2013.
- In terms of maritime infrastructure, the Caspian Sea ports of Anzali and Amirabad, in the north of Iran, are to undergo major capacity upgrades to double their loading and unloading capabilities, according to the Head of the Iranian Ports and Maritime Organization (PMO), Ata'ollah Sadr. The port of Anzali will increase its cargo-handling capacity from 8mn tonnes per year to 16mn tonnes. Amirabad, which is already Iran's largest Caspian Sea port, will go from a 5mn tonnes capacity to 10mn.

- With the exception of Russia and China, foreign interest in Iran's construction sector will remain limited, while constrained government finances, persistent project implementation issues and sluggish activity in the oil and gas sector will continue to constrain growth in industry value.

SWOT

Infrastructure SWOT

Iran Infrastructure Industry SWOT

Strengths	▪ Demand is strong in new housing, and the oil and gas sectors. ▪ Iran has a wealth of natural resources, which is of particular advantage to the construction sector. This wealth includes 9% of the world's confirmed oil reserves and 16% of its natural gas reserves. It also has plentiful reserves of iron ore, non-metallic minerals (including copper, zinc and bauxite) and decorative stones such as marble and granite. ▪ The country is investing in its refinery sector in an attempt to become more self-sufficient.
Weaknesses	▪ Not enough housing capacity is added annually, resulting in a huge backlog. ▪ The Iranian construction industry has been criticised for having poor building standards. Constructors are unwilling to invest money in modern technologies, building codes are widely disregarded, and municipal governments have failed to enforce them or to run a proper inspection system. ▪ There are persistent reports of widespread corruption, including the routine payment of bribes to officials by major construction companies. ▪ Exorbitant land prices account for half of construction costs. ▪ Government deficit impacts public spending on infrastructure projects, and already the authorities are placing greater reliance on private investment - of which there is little - most notably due to the US and EU energy sanctions.
Opportunities	▪ Conditions for foreign companies and contractors were eased as a result of the introduction of the Law for the Attraction and Protection of Foreign Investment (LAPFI), approved in 2002.

Iran Infrastructure Industry SWOT - Continued

	▪ The Iranian government is now actively pursuing opportunities in Iraq, one of the major economies in the region and now politically moving closer to Iran. ▪ Changes to the government's food subsidy programme could release funds for investment in infrastructure.
Threats	▪ Iran is located in a high seismic activity zone and earthquakes have cost the country millions of US dollars in reconstruction work. The long-term rebuilding costs for the quake-hit city of Bam are estimated at almost US$1bn. ▪ Sanctions designed to halt Iran's nuclear programme have resulted in Western investors pulling out of the country and a US ban on foreign financial institution from transacting with Iran's Central Bank - the main conduit for the country's energy deals.

Industry Forecast

Construction And Infrastructure Forecast Scenario

Table: Iran Construction And Infrastructure Industry Data

	2012	2013e	2014f	2015f	2016f	2017f
Construction industry value, IRRbn	352,905.0	472,892.7	600,573.7	714,682.7	839,752.2	955,638.0
Construction industry value, US $bn	28.9	23.1	24.3	32.5	35.0	43.4
Construction industry, real growth, % y-o-y	-3.7	-1.0	1.0	3.0	3.5	3.8
Construction industry, % of GDP	5.3	5.3	5.2	5.2	5.2	5.1
Total capital investment, IRRbn	2,021,175.1	2,789,221.6	3,653,880.4	4,457,734.0	5,393,858.2	6,310,814.1
Total capital investment, US $bn	165.7	136.1	147.9	202.6	224.7	286.9
Total capital investment, % of GDP	30.1	31.3	31.7	32.2	33.1	33.8
Capital investment per capita, US$	2,168.2	1,756.8	1,885.2	2,549.5	2,793.2	3,523.0
Real capital investment growth, % y-o-y	-1.0	3.0	5.0	6.0	7.0	7.0
Construction industry employment, '000	2,912.1	2,889.0	2,911.9	2,981.2	3,064.5	3,158.2
Construction industry employment, % y-o-y	-3.0	-0.8	0.8	2.4	2.8	3.1
Total workforce, '000	54,318.9	54,902.9	55,445.3	55,945.9	56,408.2	56,844.1
Construction industry employees as % of total labour force	5.4	5.3	5.3	5.3	5.4	5.6
Cement production (including imported clinker), tonnes	54,197,107.6	55,422,906.7	57,633,756.0	60,419,426.0	63,859,444.7	67,539,969.1
Cement production (including imported clinker), tonnes, % y-o-y	-1.0	2.3	4.0	4.8	5.7	5.8
Cement consumption, tonnes	54,985,791.9	56,164,601.1	58,400,966.1	61,218,002.4	64,691,088.6	68,406,483.6
Cement consumption, tonnes, % y-o-y	-1.2	2.1	4.0	4.8	5.7	5.7
Cement net exports, tonnes	-788,684.3	-741,694.3	-767,210.2	-798,576.4	-831,643.9	-866,514.5

Iran Construction And Infrastructure Industry Data - Continued	2012	2013e	2014f	2015f	2016f	2017f
Cement net exports, tonnes, % y-o-y	-12.7	-6.0	3.4	4.1	4.1	4.2

e/f = BMI estimate/forecast. Source: BMI, Bank Markasi, USGS, UN

Table: Iran Construction And Infrastructure Industry Data	2018f	2019f	2020f	2021f	2022f	2023f
Construction industry value, IRRbn	1,081,782.2	1,219,168.6	1,377,660.5	1,563,644.7	1,774,736.7	2,014,326.2
Construction industry value, US$bn	49.2	58.1	65.6	86.9	100.6	116.5
Construction industry, real growth, % y-o-y	4.2	4.7	5.0	3.5	3.5	5.8
Construction industry, % of GDP	5.1	5.1	5.0	5.1	4.9	5.0
Total capital investment, IRRbn	7,320,544.3	8,418,626.0	9,681,419.9	11,036,818.7	12,802,709.6	14,392,074.6
Total capital investment, US $bn	332.8	400.9	461.0	613.2	725.8	832.5
Total capital investment, % of GDP	34.5	35.0	35.5	35.7	35.7	35.4
Capital investment per capita, US$	4,040.2	4,814.3	5,478.6	7,214.0	8,458.2	9,614.8
Real capital investment growth, % y-o-y	7.0	7.0	7.0	6.0	5.0	4.7
Construction industry employment, '000	3,265.6	3,390.8	3,530.4	3,632.9	3,739.0	3,920.6
Construction industry employment, % y-o-y	3.4	3.8	4.1	2.9	2.9	4.9
Total workforce, '000	57,271.8	57,713.2	58,184.1	58,690.6	59,228.8	59,791.9
Construction industry employees as % of total labour force	5.7	5.9	6.1	6.2	6.3	6.6
Cement production (including imported clinker), tonnes	71,477,817.0	75,679,246.8	80,174,072.6	84,293,122.5	87,934,408.9	91,521,795.7

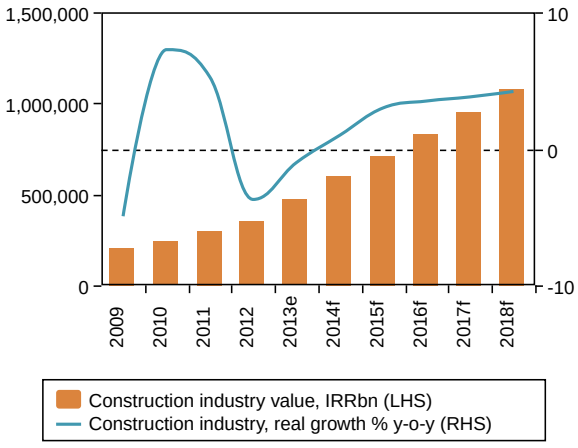
Iran Construction And Infrastructure Industry Data - Continued						
	2018f	2019f	2020f	2021f	2022f	2023f
Cement production (including imported clinker), tonnes, % y-o-y	5.8	5.9	5.9	5.1	4.3	4.1
Cement consumption, tonnes	72,381,113.5	76,609,420.1	81,132,077.2	85,273,498.5	88,937,737.1	92,541,144.2
Cement consumption, tonnes, % y-o-y	5.8	5.8	5.9	5.1	4.3	4.1
Cement net exports, tonnes	-903,296.5	-930,173.3	-958,004.5	-980,376.0	-1,003,328.2	-1,019,348.5
Cement net exports, tonnes, % y-o-y	4.2	3.0	3.0	2.3	2.3	1.6

f = BMI forecast. Source: BMI, Bank Markasi, USGS, UN

Our outlook for the Iranian construction industry in the short- to medium is turning more optimistic. Although we estimate there was a contraction of 1% in real terms in 2013, we forecast the industry to grow by 1% in 2014 and by an average of 3.8% over the next five years. Our more positive outlook is based on reduced economic sanctions from the West with regards to Iran's nuclear programme, low base effects, and a high demand for infrastructure projects. There are, however, high risks associated with the country's challenging macroeconomic picture and its weak business environment.

Rebound In The Horizon

Iran - Construction Industry Value And Real Growth %



e/f = BMI estimate/forecast. Source: BMI, Bank Markasi

The more conciliatory approach of President Hassan Rouhani is expected to have a positive impact on Iran's macroeconomic prospects over the medium term and this represents an upside risk to our forecast. However, undermining this potential for an improved macro-economic picture, the devaluation of the Iranian *rial* by the Central Bank will increase the cost of imported construction materials, potentially hindering industry growth.

Overall, Iran's macroeconomic outlook will remain highly influenced by developments in negotiations with the West on the country's nuclear programme. In January 2014, Iran and the so-called P5+1 countries -

China, France, Russia, the UK and the US plus Germany - reached an understanding on the implementation of a deal reached in November 2013. The accord starts a six-month timetable to reach a final agreement on the nuclear programme.

Although the signing of the interim accord is a positive step in negotiations that could also help attract foreign investment for infrastructure projects, significant challenges remain. In particular, it is unlikely that the implementation of the accord will quell efforts in the US Congress to escalate pressure on Iran with further sanctions. Exactly 59 senators signed on to a new Iran sanctions bill in support of further sanctions legislation, a move which senators see as instrumental to putting additional pressure on Tehran to abide by the rules of the agreement. Iran has threatened to abandon talks if Congress votes to tighten economic restrictions. That said, Obama repeated on January 12 his vow to veto additional sanctions while negotiations on a broader deal continue.

We see three potential scenarios in negotiations. One sees talks continuing without key developments over the next 12-24 months, another a major breakthrough within six to twelve months, and a third a breakdown in talks within the same time frame, with our core forecast being a gradual improvement in relations. Should our core view play out, we would consider a further upward revision to our forecast.

Key Trends And Developments In The Industry

- **Baseline assumptions:** We estimate that Iran's economy will have contracted by 3.5% in real terms in 2013 and forecast a return to growth of 2.8% in 2014. Low base effects and a rebound in oil exports, coupled with improving business and consumer confidence following the victory of moderate cleric Hassan Rouhani in Presidential elections in June 2013, will see growth return to positive territory in 2014.
- The macroeconomic picture will likely improve over the medium term. In particular, we expect macroeconomic management to improve significantly under Rouhani's presidency, which will lead to an acceleration in the country's headline GDP growth figure over the coming years. This, in turn, creates potential upside to our construction industry forecast.
- In addition, the availability of imported goods has decreased significantly as a result of the ongoing depreciation of the *rial*. This is particularly relevant to the construction industry as imported materials become considerably more expensive.
- *Our Country Risk team has recently upwardly revised our forecast for consumer price inflation to average 35.0% in FY2013/14, compared to 31.6% in FY2012/13. Although it will remain high, inflation in 2014 is expected to decline gradually, mainly as a result of base effects and a relative improvement in the outlook for* the *rial*.
- In terms of nuclear energy, Iran has made significant progress lately as the 1,000MW Bushehr nuclear power plant became fully operational in July 2013. The west has opposed any such developments, claiming that the Iranian nuclear programme is a cover for the development of atomic weapons.

Turning The Corner

The outlook for the sector has been challenging, with an estimated contraction in Iran's construction industry of 1.0% over 2013 year-on-year. A combination of constrained public spending, a prohibitive business environment and a complex macroeconomic picture have all dragged on growth. Iran has amassed a hefty US$40bn backlog of incomplete projects as the incentive to invest in new infrastructure for Iran's oil industry has waned, with the number of markets prepared to accommodate Iranian output have dwindled (several key customers have cut Iranian crude imports).

Consequently, although Iran possesses 9% of the world's proven oil reserves, a lack of new developments and foreign expertise has left the country heavily reliant on existing and ageing infrastructure, with few opportunities for any international construction players to invest in necessary upgrades. Oil revenues account for a significant proportion of government income, estimated at 40% of total revenues in FY2011/2012. This percentage has fallen to 30% in FY2012/2013 as a result of international sanctions, having an adverse impact on public spending on infrastructure.

In addition, Japan was the second largest importer of Iranian crude prior to sanctions and continues to purchase oil under US exemptions. However an impending rule intended to streamline Japan's ailing refining sector is leading to a shutdown of capacity and a reduction of demand for crude imports. This will further increase the challenges facing Iran to regain international market share if sanctions are lifted.

However, we are more optimistic towards 2014 and beyond. Although the severe constraints on public spending are likely to persist over the near term at least, there are a number of major public projects in the pipeline. A recent illustration of this came in April 2013 with the government's announcement that it will invest IRR52trn (US$4.1bn) in the development of 20 water supply projects across the country in 2014. Iran is facing a severe water shortage, to the extent that water has been declared as a national security issue by President Rouhani.

Meanwhile, with foreign investors largely deterred by the country's opaque and volatile business environment, China and Russia will likely remain the only countries with a significant presence. Both have vested interests in Iran, most significantly in terms of geopolitics and the commodities trade, and have therefore contributed funding for related infrastructure projects in the past.

For example, in October 2013 it was announced that a new subway linking the capital Tehran with Imam Khomeini Airport will be financed with Chinese funds. As explained by the country's Roads and Urban Development Minister, Abbas Akhoundi, frozen oil revenues from Iran in China will be used to fund the

52km subway. The project also includes free trade zones at the airport which is expected to be completed in 2015.

Likewise, the North-South Rail Corridor, an ambitious project to create a freight-rail link between Europe, via Russia and Azerbaijan, through Iran and eventually linking to India and South East Asia, advanced in October 2012 - with the unveiling of a cooperation agreement between transport ministry representatives from Russia, Azerbaijan and Iran. It is hoped the rail line will carry around 20mn tonnes of cargo a year, and improve transport links across Eurasia. Ongoing negotiations among the various stakeholders were reported to be taking place in June 2013.

We are also seeing progress on the US$450mn Iran to Iraq gas transmission pipeline. Although the pipeline was expected to be completed already, the section in Iraq was delayed as a result of unstable security and property issues. In fact, fifteen Iranians and three Iraqi workers were killed in a pipeline attack in December 2013. Despite political pressure from the US and the current sanctions imposed on Iran, the project is expected to become operational in 2014.

A Word Of Caution

We must, however, reiterate that estimated growth is based on our aforementioned core scenario, and we highlight that official data is not always timely and transparent. In addition, the volatile political landscape means a slight change to any variable could have far-reaching implications for our outlook for the country and its construction sector.

A breakdown over the nuclear talks could weigh heavily to the downside on our forecasts. Further hardship and isolation due to continued sanctions could eventually result in further depletion of foreign reserves, the effect of which would be an economic nosedive leading to the rationing of goods, and the country's construction sector grinding to a virtual halt.

Considerable upside potential comes in the form of political change. With Hassan Rouhani as the new leader, we expect macroeconomic management to improve significantly under his presidency. Rouhani's more conciliatory approach has led to more open and constructive negotiations over the nuclear programme that has seen a partial lifting of sanctions and could potential lead to a 'return to normal' scenario over the medium term.

Transport Infrastructure – Outlook And Overview

Iran's transport sector is catering for the needs of a population of approximately 78mn and the business needs of an economy potentially worth US$587bn. We believe there are upside predictions for both of these numbers and this will place a strain on the country's transport infrastructure if it does not continue, or rather start, to expand and modernise. Despite government ambitions to attract investment into road, rail and air links to meet the needs of a rising population, there has been little activity in the past five years. The ambition has naturally been severely dampened by US and EU sanctions as a result of Iran's debated nuclear programme.

Flying In

Iran has a total of 319 airports, of which 140 have paved runways. The country has yet to develop a significant tourist sector, with airports mainly used by business travellers. With Iran being the second-largest OPEC oil producer and sitting on the world's second largest gas reserves, its airports cater for the needs of business associated with these two areas. Airports also serve the country's freight sector, although air transport makes only a small portion of total freight transported.

There are plans to expand Iran's main airports, with **Iranian Airports Holding Company** looking to attract in excess of US$1bn in investment into the aviation sector. The main ongoing expansion project is the Imam Khomeini airport in Tehran, which is to be tripled in capacity to 20mn passengers a year, before hitting its peak capacity of 90mn passengers a year - a long-term target that appears highly ambitious in the current climate. Tehran has yet to secure financing commitments for its planned expansion of Qeshm International Airport.

Funding problems will pose the biggest challenges to Iran's proposed air expansion strategy and transport infrastructure more widely. In order to compensate for the lack of funds, the Iranian government is to sell bonds worth IRR7trn (US$570mn), as reported in February 2013. The investment should help finance the development of transport infrastructure projects in the country, as it did in 2012 when 54 projects were developed using IRR30trn (US$2.4bn) of investment generated by bond sales.

Driving Up

BMI forecasts that the number of cars on Iranian roads is set to grow in the long term, although gasoline rationing measures may place a downside risk on this forecast as it becomes more difficult for citizens to buy fuel. Rapidly increasing car sales are placing a strain on the country's road infrastructure and the roads

may need to be repaired more often, as they deal with greater loads and traffic. The country's roads must take the brunt of most of the freight transported within its borders. Roads made up 70% of freight transported in 2013 and this is set to grow to 74% in 2018.

Iran has a total of 198,866km of roads, of which 160,366km are paved, and the country boosts 1,948km of expressways. The country's road network links it with its neighbours: the 2,500km A1 highway runs from Bargazan on the Turkish border, across Iran, to the Afghan border in the east. The A2 links the Iraqi border in the west to Mirjaveh on the Pakistani frontier.

Construction of the Shrine to Shrine Highway officially began in mid-October 2010 and was started by President Ahmadinejad. It is designed to connect the cities of Qom and Mashhad. The 1,100km highway, which is to pass through the cities of Garmsar, Semnan and Sabzevar, will include an electric railway. The project is expected to cost around US$4bn but this number could increase as a result of severe delays.

US-imposed gasoline import sanctions inflict an additional financial burden on the Iranian government, damaging further its ambitious energy expansion plans and also handicapping areas such as freight transport. Despite holding the world's third-largest oil reserves, Iran has struggled to meet growing domestic fuel demand owing to the burden of subsidies and inadequate refining capacity.

Rolling In

Unlike a number of other Middle Eastern nations, Iran has already developed a railway system. The network carries not only passengers but also freight - although this is limited. Iran's railway network services approximately 25% of the total freight transported in the country. There is a total of 8,442km of railway track, of which the majority is standard gauge, but the country also has a broad-gauge system. Only 148km of the track is electrified. The network is based on lines centred in Tehran. Three run southwards: to Bandar Imam Khomeini on the Gulf (with a spur to Khorramshahr); to the Gulf port of Bandar Abbas near Qeshm; and, to Kerman (with a spur running to Isfahan and Shiraz).

For some time now, we have seen strong Chinese interest in investing in Iran's railway sector. In October 2011, the Chinese government made an offer to build a freight rail line, aimed at allowing continuous rail transport of goods from China, through the Middle East to Europe. The line is expected to cost US$2bn, starting in Tehran and running to Khosravi on the Iraqi border and will also offer a passenger service.

In line with this trend, a new subway linking the capital Tehran with Imam Khomeini Airport will be financed with Chinese funds as announced in October 2013. As explained by the country's Roads and Urban

Development Minister, Abbas Akhoundi, frozen oil revenues from Iran in China will be used to fund the 52km subway. The project also includes free trade zones at the airport which is expected to be completed in 2015.

Chinese investment in transport infrastructure is welcomed by the country as the sector has not seen sustained investment in recent years. In terms of transport infrastructure, Iran ranks 76th out of 148 countries in the World Economic Forum Global Competitiveness Index 2013 - 2014. Lack of investment in infrastructure is linked to a decline in gross fixed capital formation (GFCF), which is a good proxy for infrastructure.

In addition, the government of Iran allocated US$667mn for the construction of Chabahar-Zahedan-Mashhad Railway project. Upon completion, the railroad will connect Chabahar with the provincial capital city of Zahedan, passing through the cities of Iranshahr and Khash, to eventually reach the holy city of Mashhad. The funds are expected to accelerate the construction work, facilitating transit expansion in the province, according to the province's Governor General Ali Osat Hashemi.

BMI notes that although Iran's rail freight sector is falling behind the road sector, a plan to privatise wagons could attract interest, as there is growth potential in the market. **BMI**'s view is based on analysis of rail infrastructure projects that are underway or have been announced and will connect Iran's railway to other countries, thus offering increased access for rail freight. Work is underway on a railway to connect Iran with Iraq, and the country is developing its freight transport relations with the landlocked states of central Asia, with plans to launch a container train route between Almaty in Kazakhstan, Tashkent in Uzbekistan and Istanbul in Turkey.

Some tangible progress was reported in June 2013 with the inauguration of a new railway line between Gorgan and Incheh Borun. The 80km line is part of the Kazakhstan-Turkmenistan-Iran transit corridor, which is currently being developed by the three countries. The section linking Turkmenistan and Iran is under construction.

In November 2012, a trilateral memorandum of understanding by the Islamic Republic of Iran Railways, the National Development Fund and the Ministry of Industries and Mines was announced by Iran Railways' Managing Director, Abdol-Ali Saheb-Mohammadi. The agreement will see EUR1bn (US$1.28bn) earmarked for the country's railway industry and railroad spanning approximately 420km. The railroad network is due to link together all the provinces in the country over the next two years.

Sailing Through

Since the war with Iraq, Bandar Abbas has overtaken Khorramshahr as the country's major port, handling three quarters of the 20mn tonnes of cargo that pass through Iran's Gulf ports each year. Smaller ports at Bushehr, Bandar Lengeh and Chah Bahar have also assumed greater importance. In addition, the Caspian ports have benefited from Iran's attempts to develop its relations with the central Asian republics, while modernisation programmes have been implemented at Bandar-e Anzali and Chah Bahar. Iran has also developed a transport network on its waterways. The major system is 850km long and is based on the Karun River and Lake Urmia.

In terms of the Caspian ports, the Iranian Sea ports of Anzali and Amirabad, located in the north of the country, are to undergo major capacity upgrades to double both their loading and unloading capabilities, according to the Head of the Iranian Ports and Maritime Organization (PMO), Ata'ollah Sadr. The port of Anzali will increase its cargo-handling capacity from 8mn tonnes per year to 16mn tonnes. Amirabad, which is already Iran's largest Caspian Sea port, will go from a 5mn tonnes capacity to 10mn. The expansion projects have been split into two phases. The first of these is underway and has seen investment of US$52.3mn, while the second and larger phase, will need US$130mn of investment. The PMO has approved finance worth US$110mn for construction of four berths as well as a dredging operation across the Amirabad port's basin.

Despite the various obstacles facing the Iranian construction sector, we do see scope for these projects to be realised. The Caspian Sea port upgrades come off the back of increased demand for imported grain, namely from Kazakhstan and Russia who have reported particularly strong harvests lately. Where other ports, in particular on Iran's Gulf Coast, will suffer from the drop in demand for consumer goods, food is not affected by the international sanctions leveraged on Iran. A major part of the expansion in capacity is focussed towards the import of grains, with the port's third silo set to have a total capacity of 54000 tons. With the increase of the number of silos in Amirabad, it will turn into the grain hub of the northern Iran for the transit of the commodity from north to south. Iran, once a wheat exporter, has been importing vast amounts of the grain over recent months.

Iran's ports are still limited in their capacity, only able to service 100,000 tonne vessels. This has forced Tehran to ask ships to dock at the main UAE ports, such as Dubai's Jebel Ali, so that goods can be loaded onto smaller ships and then sent to Iran.

However, we have observed some investment in Iran's port sector that has enabled larger vessels to use the country's maritime facilities. In January 2010, the Iranian Port of Bushehr received a container ship with 3,000 twenty-foot equivalent units (TEUs). Industry observers believe the docking of such a large container ship signifies that the Port of Bushehr has enhanced its infrastructure and competence level. This will also prove beneficial in increasing the port's business as it will attract more shipping companies.

The ongoing diplomatic struggle concerning the country's nuclear energy sector is likewise having an effect on the country's port infrastructure. Port operator Tidewater Middle East Co (Tidewater) was added to a US Treasury Department blacklist for sanctions in July 2011. The firm is the largest handler of container shipping at Iranian ports and is estimated to be responsible for more than 90% of the container operations in Iran.

Major Projects Table - Transport

Table: Major Projects Table - Transport

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Khoy airport (nine infrastructure projects)	Airports	4	na	na	2008-2009	Completed (September 2008 - nine infrastructure projects have been launched which complete in 2009)
Imam Khomeini International Airport Expansion Project Phase 2	Airports	2,200	26.5mn passengers/yr	na	2013	Under construction (April 2013)
Bandar Abbas port renovation	Ports	na	6,300,000 TEUs	na	na	Suspended
Pars Port, Bushehr	Ports	na	na	Bushehr Port Authority	na	At planning stage (July 2013)
40 multipurpose ports	Ports	4,000	na	na	na	Under construction (September 2012)
Chabahar Port Development Project	Ports	na	10,000,000 tonnes	Khatam al-Anbiya (KAA)	2014	Under construction (November 2013; First phase would be operational in February 2014)
Chabahar-Sarakhs railway	Rail	2,500	na	Khatam Al-Anbiya (KAA)	2010	Contract Awarded

Major Projects Table - Transport - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
						(Tender winner announced)
Monorail System, Qom (Stage 1)	Rail	120	6km	Mapna	2009	Under construction (The monorail system will extend 18km in total)
National railway lines project	Rail	12,500	na	na	na	Under construction (The Qazvin-Rasht-Anzali, Shiraz-Bushehr-Assaluyeh, Qazvin-Qom, Miyaneh-Ardebil, Maragheh-Oroumiyeh, Yazd-Shiraz, Golgohar-Shiraz, Gorgan-Bojnurd-Mashhad, and Miyaneh-Bostanabad-Tabriz lines are the new railway lines that will be constructed)
Inceburun-Gorgan railway	Rail	98	80km	na	2012-2013	Completed (June 2013)
Kyrgyzstan-China-Iran Rail Network	Rail	na	na	Metra (Feasibility)	na	At planning stage (June 2013)
Iran-Turkmenistan-Kazakhstan joint Railway Project	Rail	na	90km	na	2011	Under construction (Total cost is US $1,400mn)
Iran-Armenia rail link connection PPP	Rail	na	60km	Rasia FZE	na	Contract Awarded (Total Project cost= US$2500mn)
Regional rail network across Iran	Rail	63	na	na	na	Under construction (Construction of first phase under way)
North-South Rail Corridor	Rail	400	566km	na	na	Contract Awarded (February 2011 - Inter-governmental JV agreement signed)

Major Projects Table - Transport - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Tehran-Qom-Esfahan rail line	Rail	na	410m	na	na	Under construction (September 2011)
Tehran-Mashhad Rail Line Electrification Project	Rail	na	926km	na	2012	Under construction (The upgrades will increase the speed of passenger trains from 160km/h to 200km/h)
Isfahan Underground line 1	Rail	99.24	12.5km	Mapna, Namad Mobtaker Company	2010-2013	Under construction (12km will be in tunnel and have 15 stations, all underground)
rehabilitation of a rail line, Lorestan region	Rail	na	60km	na	na	In tender/ Tender launched (January 2011- Bids due)
Rail line, Tazraj-Ensheab, Homozgan region	Rail	na	200km	na	na	In tender/ Tender launched (January 2011- Bids due)
Tehran-Khosravi rail line	Rail	2,000	570km	na	na	Contract Awarded (Contract signed with Chinese company)
Chabhar Port to Fahraj Railway	Rail	na	600km	Indian Railways	na	At planning stage
Iran, Russia and Azerbaijan railway	Rail	na	8.4km	na	2008	Approved (Governmental agreement to proceed)
Electrification of Tebriz-Azarshahr Railway Project	Rail	11.98	46km	Sazeh Novin Tabriz, Russian Railways	2009-2012	Completed (Work also includes electrifying the five-stations)
Qazvin-Rasht-Astara Railway Project	Rail	400	205km	na	2014	Under construction (November 2013 - 80% of Qazvin to Rasht railway line construction completed)
Iran-Turkmenistan-	Rail	150	90km	na	na	Completed (May 2013)

Major Projects Table - Transport - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Kazakhstan Joint Rail Project						
Bam-Zahedan railway line	Rail	291	1.8km	na	na	Completed (Passenger service has allegedly started from January 2012)
Iran-Azerbaijan Railway(Qazvin-Rasht-Astara (Iran)-Astara (Azerbaijan))	Rail	na	300km	na	2009-2014	Under construction (November 2013- Azerbaijan, Iran discuss financing railway project in Iran. Total cost= US $408mn. Total length= 375km)
Tehran Monorail	Rail	na	12km	na	2008	Cancelled (The project was cancelled in April 2010, with only 3% completed)
Tehran-Shomal Freeway(phase1)	Roads & Bridges	138	32km	Khatam Al-Anbia	na	Under construction (Total project cost US $750mn. Project to be completed by 2017)
Persian Gulf bridge project	Roads & Bridges	888.75	2.2km	na	2011-2012	Completed

na = not available. Source: BMI Key Projects Database

Energy And Utilities Infrastructure – Outlook And Overview

Data for Iran's electricity generation and consumption show a country capable of meeting its own power demands, but is distant from achieving its energy export ambitions. Our Power analysts estimates electricity generation in 2013 was 224.3TWh, just exceeding the country's power consumption of 185.4TWh for the year. This looks set to continue over the medium-term, with consumption forecast to climb to 222.7TWh in 2018. This will then be met by supply, which is expected to increase to reach 263.7TWh. To realise this expansion in generation capacity, Iran and Russia have signed a letter of intent on energy cooperation and are constructing shared power grids.

In addition, Iran's power generation capacity is expected to grow by 2,000MW in summer 2014 with the inauguration of new power plants in the country, according to Iran Power Development Company (IPDC) Managing Director, Majid Salehi. Out of the total capacity increase, 550MW will pertain to the private sector, while about 1,400MW to the public sector. The latest development of new power plants include two 162MW units in Hormuzgan province, two 162MW units in Iranshahr, two steam units in Abadan, Kahnouj power plant in Kerman province, Parrehsar power plant in Gilan province, a thermal power plant in Bushehr province and two 25MW units in Kermanshah province.

Filling Up On Gas

Although Iran has the installed capacity to meet demand, the country's undiversified power sector is susceptible to blackouts. Iran has the world's second-largest gas reserves and has built a power sector that is overwhelmingly reliant on this indigenous fuel. Gas is expected to account for over 70% of the country's total power generation by 2018, increasing to more than 74% by the end of our forecast period in 2023. Recent gas-fired projects include two 1.04GW combined cycle plants in the south of the country, a 1.3GW combined cycle plant at Arak, a 1GW facility in Bandar Abbas, and a 1GW combined-cycle plant being built by the **Tehran Regional Electricity Company** in Qom.

An additional US$3bn is needed for the 40%-complete liquefied natural gas (LNG) facility at Tombak Port in the southern province of Bushehr, according to **Iran LNG Company**'s managing director, Ali Kheir-Andish. The facility, which has a capacity of 10.8mn tonnes per year, had received US$1.5bn in investment as of December 2010. Substantial investment is also needed for downstream industries. Iran will, reportedly, invest US$46bn to upgrade its nine refineries and build seven new ones.

Furthermore, Assalouyeh - in the same province of Bushehr - is to house a 600,000 tonne capacity petrochemical facility. Upon completion, the planned facility will be the largest of its kind in the Middle

East. The plant will be built by Iranian infrastructure services provider the **National Petrochemical Company**, with works having already begun in the Pars Special Economic Zone, as of July 2013.

In addition, final stage construction work on a US$7bn gas pipeline connecting Iran and Pakistan started in March 2013, despite having faced repeated delays since its conception in 1990s. Gas is expected to start flowing from Iran by the end of 2014 in order to contribute to Pakistan's gas shortfall and ameliorate the country's energy deficit. The project, dubbed the peace pipeline, was slated to connect Iran's giant South Pars gas field to India through Pakistan (IPI Pipeline). However, the US has been opposing the involvement of India and Pakistan, claiming that the project could violate sanctions imposed on Iran for carrying out nuclear activities to develop a weapons capability. For now, the project has been forfeited by India, citing costs and security issues, following a nuclear deal with the US.

We are also seeing tangible progress on the US$450mn Iran to Iraq gas transmission pipeline which is 90% complete as for July 2013. Although the pipeline was expected to be completed already, the section in Iraq was delayed as a result of unstable security and land ownership issues. We expect this project to become operational despite political pressure from the US and the current sanctions imposed on Iran.

Developing Nuclear No Matter What

The country is in the process of developing a highly controversial nuclear power sector. Russia has helped Iran to complete the construction of the Bushehr nuclear power station and has started delivering fuel to the facility. The programme is viewed with suspicion by members of the international community, who fear that Iran may go on to develop a nuclear bomb. **BMI** believes that the nuclear facility could contribute 2.4% of Iran's energy by 2014. In September 2013, the Russian government handed over operational control of the first unit of Bushehr the Iranians according to head of Iran's Atomic Energy Organization, Ali Akbar Salehi. Russian experts would be responsible for looking after the facility throughout the two-year warranty period. Additionally, Russia would supply fuel to the facility for 10 years. Meanwhile, the two governments are discussing the construction of new nuclear power plants and the second unit at Bushehr is already under consideration with the engagement of Rosatom.

Iran's nuclear programme is of primary concern to the West. However, moderate cleric Hassan Rouhani - the President of Iran elected in June 2013 - has shown signs of a more conciliatory approach towards the nuclear talks and the latest developments point to a notable improvement in relations between Iran and the West. While there are significant obstacles to a major improvement in Washington-Tehran relations, US President Barack Obama is seeking to take advantage of Rouhani's more cooperative approach to pursue a

strategy of rapprochement with the Islamic Republic, which can be a valuable legacy for its second term in office.

In fact, Iran and the so-called P5+1 countries - China, France, Russia, the UK and the US plus Germany - reached an understanding on the implementation of a deal reached in November 2013 on the Islamic Republic's nuclear programme. The accord starts a six-month timetable to reach a final agreement on the nuclear programme, a period which could be extended a further six months by mutual consent.

Although the signing of the interim accord is a positive step in negotiations, significant challenges remain. In particular, it is unlikely that the implementation of the accord will quell efforts in the US Congress to escalate pressure on Iran with further sanctions. Exactly 59 senators have recently signed on to a new Iran sanctions bill in support of further sanctions legislation, a move which senators see as instrumental to putting additional pressure on Tehran to abide by the rules of the agreement. Iran has threatened to abandon talks if Congress votes to tighten economic restrictions. That said, Obama repeated on January 12 his vow to veto additional sanctions while negotiations on a broader deal continue.

Uncontroversial Power

In moves, which are unlikely to rouse similar levels of protest, the governments of Iran and Turkey are planning to construct several power plants, said Iranian deputy energy minister Mohammad Behzad, following a visit by an Iranian delegation headed by Energy Minister Majid Namjou to Turkey. He added that the two countries discussed plans for constructing thermal and renewable power plants with generation capacities of 6-10GW, as well as hydropower plants with capacities of 10GW.

Electricity cooperation with other countries is increasingly a focus of the government, with news that Iran's Energy Minister has been quoted by the state's news agency saying that the construction of a third electricity transmission line from Iran to Armenia, with a capacity of 800-900MW, was due to begin in June 2011. However, construction has not started yet due to multiple obstacles. The minister said the project is expected to cost up to US$110mn and is to be followed by a further joint Iranian-Armenian project, a hydroelectric power plant based on the Aras River, subject to negotiation.

Iran is also exploring renewable energy sources, and has launched commercial operations at its biggest solar power plant in Mashhad. The plant, likely to produce 72,000kWh of electricity annually, will produce enough power to meet the requirements of Razavi Khorasan province, according to the plant's CEO, Gholam Reza Karamian. The plant, which has 216 solar panels, has been designed and constructed by native experts. Moreover, the plant has been fitted with solar trackers to improve efficiency.

Hydroelectric power is a major plank of Iran's programme to become more self-sufficient in energy consumption as it tries to boost generation capacity by 5,000MW. The Karoun-4 Roller-Compacted Concrete (RCC) dam, which sits across the Karoun River in Chaharmahal-Bakhtiari province in Iran, was inaugurated by former president Mahmoud Ahmadinejad in July 2011. The IRR12.8bn (US$1.19mn) dam will generate power and provide water for industrial and agricultural purposes in the province. The completion of the dam marks the fact the country's dam-building industry has become self-sufficient. In fact, according to Zawaya Iran is one of the top three dam constructors in the world. A total of 44 Iranian companies are currently active in either the electricity or water sectors, operating in 40 countries around the world.

Progress On The Waterfont

In April 2013, the Iranian government announced that it will invest IRR52trn (US$4.1bn) in the development of 20 water supply projects across the country. The projects are scheduled to be implemented in 2014 and they are intended to ameliorate a water shortage within the Islamic republic. One of the projects is the construction of a 762km water pipeline that will provide drinking water to more than 1.5mn people. The pipeline, which will be the longest water supply pipeline in Iran, is aimed at serving the potable water demands of five large cities and eleven small cities along the Persian Gulf coasts. The Iranian government has invested IRR1.8trn (about US$146mn) so far in the project, which is estimated to entail a total investment of IRR3trn (US$243.3mn).

Another project is the construction of desalination plants that will serve the water demands of people in the Iranian provinces of Hormuzgan, Kerman and Yazd. The plants are likely to be completed in four phases with private investment. Desalination plants can produce 1mn cubic metres per day of drinking water and 1,000MW of power. The Iranian government has already set up 10 pumping stations, more than 600km of water supply lines and reservoirs with a capacity of 10,000 cubic metres. It is expected that desalination plants will serve 40-50% of drinking water demands of the urban population of Hormuzgan province and its islands.

Major Projects Table - Energy & Utilities

Table: Major Projects Table - Energy And Utilities

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Iran - Iraq Gas Pipeline	Oil & Gas Pipelines	na	na	Iran Consulting Group (ICG)	2013	Delayed (July 2013; Total value of the project - US $365mn and total length of the pipeline - 220km)
Kish Gas Field Project - Phase I	Oil & Gas Pipelines	12,000	200km (31.03 bcm/year)	China Petroleum Engineering and Construction (CPECC), Bank Mellat, National Iranian Oil Company (NIOC)	2012-2014	Under construction (Construction had commenced in August 2012)
Gas Pipeline, Northwestern Iran	Oil & Gas Pipelines	1,300	na	National Iranian Gas Exports Company (NIGEC), Khatam al-Anbiya (KAA)	na	At planning stage (February 2011)
Southeastern Khuzestan Province - Rey refinery Oil Pipelines Project, Tehran	Oil & Gas Pipelines	2,600	1,100km	Khatam al-Anbiya (KAA)	na	Contract Awarded (February 2011 - Involves construction of two pipelines)
Anbar - Akkas Gas Pipeline Project	Oil & Gas Pipelines	449	550km	Korea Gas (Kogas), STX Group	2017	Contract Awarded (January 2014)
Kuwait-Iran Pipeline	Oil & Gas Pipelines	na	590km	na	na	At planning stage
South Pars Gas Field - Phase 12	Oil & Gas Pipelines	500	206,000,000m^2	Petropars	na	Under construction (November 2013)
Azerbaijan - Iran Gas Pipeline Project	Oil & Gas Pipelines	na	na	National Iranian Gas Exports Company (NIGEC), Socar	na	At planning stage (May 2013 - Total length of the project is 200km)
Iran-Pakistan-India Pipeline Project	Oil & Gas Pipelines	500	na	ILF Consulting Engineers Polska sp. z o.o., GAIL India, Tadbir Energy, Pakistan Interstate Gas Company	2014	Under construction (November 2013)

Major Projects Table - Energy And Utilities - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
				(ISGC), Government of Iran (Sponsor), Government of China (Sponsor)		
Iraq-Iran Gas Pipeline Project	Oil & Gas Pipelines	na	na	na	na	At planning stage (October 2013 - Agreement between Iraq and Iran signed; Total length of the project would be 270km)
Tabriz (Iran) - Yeraskh (Armenia) Fuel Pipeline	Oil & Gas Pipelines	na	na	na	2013	At planning stage (February 2011; Total length of the pipeline is 365 km)
Third Iran-Armenia Transmission Line	Power Plants & transmission grids	na	na	Sanir	na	Approved (Total Value - US $138.08mn; Total Size - 850MW)
Iran - Armenia 3rd electricity transmission line	Power Plants & transmission grids	110	650MW	na	na	At planning stage (June 2011- At final planning stages)
Ghadir Solar and Wind Power Plant	Power Plants & transmission grids	4,500	1,000MW	na	na	Contract Awarded (January 2011)
Tehran Biomass Plant	Power Plants & transmission grids	na	2MW	na	2010	Announced
Jarandaq wind power plant, Qazvin	Power Plants & transmission grids	na	60MW	na	na	Feasibility studies/EIA under way
Karachilare (Ghareh Chilar) Hydropower Plant, Aras River	Power Plants & transmission grids	na	130MW	Farab Company Iran	na	At planning stage (February 2013)
Electricity transmission line to Iran from Armenia	Power Plants & transmission grids	na	1,200MW	Sanir	na	Approved (A consortium of Iran's private sector companies to provide financial assistance of US$571mn)
Bakhtiari Hydropower Plant CDM Project, Zagros Mountains,	Power Plants & transmission grids	2,000	1,500MW	Rahbord Energy Design & Development Eng. Co. (REDECo),	2013	Under construction (March 2013 - Dam will have

Major Projects Table - Energy And Utilities - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Lorestan Province				Iranian Revolutionary Guards, Khatam al-Anbiya (KAA)		six 250MW turbines)
Bushehr Nuclear Power Plant	Power Plants & transmission grids	11,000	700MW	Rosatom, Atomstroyexpert	1994-2011	Completed (September 2011 - Connected to National grid .)
Iran-Russia electricity grid link	Power Plants & transmission grids	na	na	na	2008	Contract Awarded (Letter of intent signed, RAO UES seeking the project)
Iran-Turkey Transmission Line	Power Plants & transmission grids	1,500	2,000MW	na	na	Contract Awarded (Memorandum signed)
8 power stations in Khuzestan Province	Power Plants & transmission grids	na	na	na	2008	Announced
Rudbar-E-Lorestan Hydropower Project on Rudbar River, Zagros Mountain	Power Plants & transmission grids	9.52	450MW	PAPyry Infrastructure & Environment business group	2011-2014	Under construction (December 2011- Excavation of Rudbar-e-Lorestan Tunnel Spillways Began)
Cycle Power Plant ,Heris, East Azerbaijan province	Power Plants & transmission grids	675	1,200 MW	Zenel Company, Tavanir	2008	Contract Awarded (Expected to complete within 2 years)
Gas-fired power plant	Power Plants & transmission grids	10,000	6,000MW	Power Grid Corporation of India Ltd (PGCIL), National Thermal Power Corporation (NTPC)	2009	At planning stage (The project also includes a 1,500 kilometres high voltage transmission link to transfer power to India. 5,000MW may be transmitted to India and balance 1,000MW may be transmitted to Pakistan.)
8 electricity power plants in Khuzestan	Power Plants & transmission grids	na	6,000MW	na	2008	Announced

Major Projects Table - Energy And Utilities - Continued

Project Name	Sector	Value (US$mn)	Capacity/ Length	Companies	Timeframe	Status
Gas-fired power plant near to the Zahedan	Power Plants & transmission grids	na	1,000MW	na	2009	Announced (2010)
177 Dams Construction Project , Iran	Power Plants & transmission grids	na	na	na	na	Approved (November 2008- Government has approved construction)
Caspian Sea-Semnan Water Pipeline And Desalination Plant	Water	1,000	200mn cbm per year (150km)	na	na	Under construction (April 2012)
Persian Gulf coast water supply pipeline	Water	243.33	762km	na	2013	Announced (April 2013)
20 Country-Wide Water Supply Projects	Water	4,100		na	2014	Under construction (Construction due to begin)
Qom and Kashan Waste Water Treatment Plants	Water	na	na	Islamic Development Bank (IDB)	na	Project finance closure (November 2009 - IDB granted loan of US$195mn)
Two wastewater treatment plants, Tehran city	Water	330	na	na	na	Project finance closure (IDB provided loan)

na = not available. Source: BMI Key Projects Database

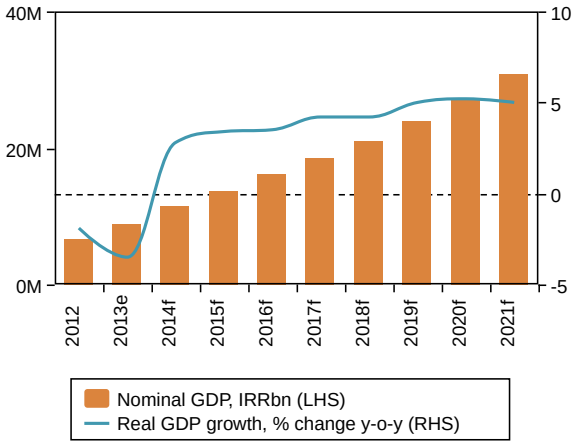
Residential/Non-Residential Building – Outlook And Overview

An industry contraction in 2012 that is estimated to have continued through 2013 had a detrimental impact on the residential and non-residential sector. We believe this sector has underperformed infrastructure as a constituent of total construction, due to the shrinking domestic purchasing power and the rising costs of building materials in the context of a depreciating currency. We are, however, more optimistic from 2014 onwards as we forecast an average annual growth rate of over 3% in the next five years. We highlight the potential of the residential and non-residential sector to play a key role in driving growth given the country's housing deficit but we remain aware of the challenges.

Demand for housing stock has traditionally been a key driver for the construction sector in Iran, but now, on the back of international sanctions in response to the country's nuclear programme, the sector has fallen behind. In January 2011, the country was facing a housing deficit of 1.5mn housing units. However, despite the economic outlook, state media continues to announce newer and grander projects (similar announcements seen in all construction sub-sectors).

Strong Potential For Growth

Iran Nominal GDP And Real Growth (%)*



**Year Begins in March (Iranian calendar). e/f = BMI estimate/forecast. Source: BMI, UN*

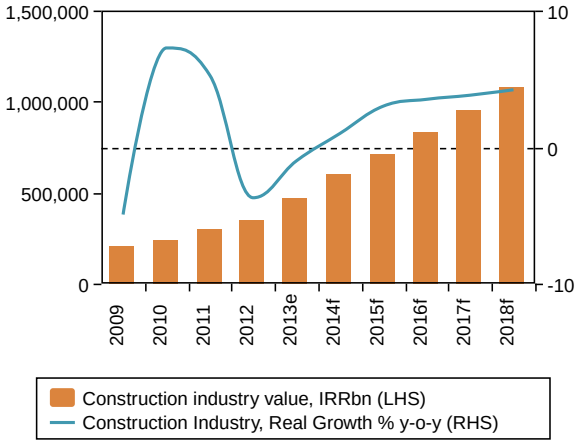
Nevertheless, the interplay of elevated price pressures and a weakening currency will ensure unemployment levels remain high in 2014. Iranians' purchasing power has been eroding steadily over the past several quarters, with inflation making it difficult to purchase basic goods. With the cost of building materials continuing to rise and demand for housing weakened by the challenging conditions facing Iranian households, residential construction activity is likely to be heavily constrained.

In the years before Ahmadinejad, private capital supplied most of the funding for the housing sector as this used to be a profitable business. However, external banking sanctions, the government's failure to deliver on housing programmes, subsidy reforms that have made construction materials more expensive, depreciation of the Iranian *rial*, in addition to political and legal uncertainties have led to a crisis in Iran's housing market. As a result, there is currently a shortage of urban housing that affects particularly the middle class.

A potent example is the statement by then Minister of Housing and Urban Development, Ali Nikzad, (who has now become the Minister of Transportation and Housing) who claimed that a total of 1.7mn units were in the pipeline or under construction, with two Turkey-based firms carrying out a project to build 25,000 units. We have been unable to confirm this data. Yet questions should be raised as to how this flagship development is being financed. As a result we have not incorporated this into our overall construction forecast that remains weighed down by heavy sanctions.

Back On The Right Track?

Construction Industry Value And Real Growth (%)



e/f = BMI estimate/forecast. Source: BMI, Bank Markasi, UN

In March 2012, former President Ahmadinejad inaugurated a housing complex in Andimeshk containing 4,000 units. Similarly, Iran's north-eastern Razavi Khorasan Province reportedly saw the delivery of 3,030 residential units in 2010/11, while a total of 440,000 units were delivered nationwide over the 12-month period. The Iranian government seemingly continues to ramp up residential construction to narrow the country's housing deficit, with 800,000 units planned to be built in rural villages. Iran's housing and urban development ministry issued 1.7mn building permits in the year to March 2012.

Following a government announcement in February 2011, Turkish construction firm **Kusadasi** is to build 20,000 new housing units in Parand near Tehran. The project is part of an expansion of cooperation between the two countries in residential construction. The planned units will be completed in a period of 18 months. The two countries are also reportedly considering developing industrial towns along their shared border to boost trade.

Yet despite these ambitious announcements, the Mehr housing project continues to be the largest in the residential sector. In July 2010, deputy housing minister Jamshid Noorsalehi announced that five foreign companies had concluded contracts to build 40,000 houses for the project. Land was prepared for building 1mn residential housing units in Q310, and in September 2011, it was reported that the scheme will see the construction of 430,000 urban residential units in early 2013. Around 20,000 housing units were supposed

to be built by a Turkish company and 5,000 housing units by a South Korean firm in the new city of Parand. According to the 2012 Annual Review by Iran's Central Bank, as of March 2012, 1.6mn residential units were under construction.

So far, the government has failed to deliver much of what it had promised while absorbing some of the private capital that would normally have gone into constructing new units. The current administration led by President Hassan Rouhani has put a stop to the Mehr plan, a move which will likely encourage private sector companies to step in and contribute to a gradual decline in housing costs.

A project that does appear to see the light of day is the US$830mn Fars Shopping Complex in Shiraz (though it is still unclear how retailers will fill the vast space) where UAE developer **Royal Star International** has recently completed extensive work. Construction Week reports that the 420,000m^2 centre houses 2,500 shops - more than any other mall in the world. The mall, opened in September 2011, is also said to include a five-star hotel, an exhibition and a conference centre as well as an amusement park.

Finally, the latest census figures indicate that Iran has more than 730 hospitals and clinics. Around 10% of this capacity is operated by the private sector or organisations such as the Social Security Organisation of Iran. However, the imposition of trade sanctions on Iran is reported to be significantly affecting patient care, due to constant lack of supply.

Industry Risk Reward Ratings

Iran - Infrastructure Risk/Reward Ratings

The potential for growth in Iran's overall infrastructure market is one of the country's redeeming features, with a combination of its dilapidated infrastructure and the government's reported spending pledge. However, for Iran, political risk is the greatest ongoing threat and is now accompanied by sanctions against the country preventing many of the largest construction companies from entering. Sanctions have also hit the government's finances to the extent that public infrastructure investment is being significantly reduced. As a result, the country has the second lowest score after Yemen in the Middle East, at 40.5 out of 100.

Rewards

Industry Rewards

Iran scores just 37.5 for industry rewards, one of the lowest scores among its peers in the region, and thus well below the regional average. With the economy only expected to post moderate growth, coupled with rising inflation and the pressure of international sanctions, **BMI** does not expect the construction sector to recover to pre-crisis growth levels over the forecast period. In terms of value, the Iranian construction industry is relatively sizeable, although growth remains constrained by a poor economy and relatively inexperienced construction companies.

Country Rewards

Iran is again well below the regional average with its country rewards score of 42.7. The need to strengthen the capital ratios and improve non-performing loan ratios in the country's banking sector weighed on Iran's country structure score. Iran also scores rather modestly in terms of its labour market. It has been observed that stringent local labour laws have prompted its labour population to seek employment abroad. This exodus has been a major problem for the construction sector, resulting in delayed projects. The country also suffers because of a poorly structured financial system, which creates hurdles when attempting to access capital.

Risks

Industry Risks

Iran's poorest performance in **BMI**'s Risk/Reward Ratings is in the industry risks sub-category, where the country continues to receive a score of 35.0. Iran's score reflects the high barriers to entry and lack of competition in the country's infrastructure markets. The country's score places it well below the regional average as a result of growing international pressure due to the country's controversial nuclear programme. The business environment in Iran is also constrained by the government's reluctance to allow substantial foreign investment in the country. The Foreign Investment Promotion and Protection Action (FIPPA) has improved regulations surrounding foreign investment. However, the level of investment still remains capped in most instances and Iranian companies still need to hold the majority stake in most ventures**.** The amount of foreign direct investment is quite small and will have to grow significantly if Iran is to make head way with its privatisation plans.

Country Risk

Iran receives a score of 48.5 for the country risk sub-category - again, well below the regional average but slightly better than last quarter. Foreign firms still find the legal-regulatory aspect of doing business in Iran laborious and prohibitive. The country's score is deflated by a lack of separation between the executive and judicial branches, as well as the risk of political and economic isolation from Western-led sanctions. The country suffers from endemic levels of corruption, while a complicated and poorly enforced commercial legal code undermines the effectiveness of the Iranian judicial system. Although nominally independent, political interference within the judicial system is rife; this further damages the business environment for foreign firms.

MENA - Infrastructure Risk/Reward Ratings

BMI View: *With a robust project pipeline supported by strong government investment, we see an improved average regional score for the Middle East And North Africa (MENA) Risk/Reward Ratings this quarter. With some of the fastest growing markets in the world - and the need for reconstruction in some countries - the MENA region offers abundant rewards and attractive opportunities for investors, particularly to those already in the region. There are, however, high risks to these rewards as political instability and capacity constraints in the GCC countries may hinder construction industry growth. In the case of Qatar, the country continues to lead our Risk/Rewards Ratings (RRR) for the region, followed by Saudi Arabia and Oman which has recently climbed our rankings from the fifth position.*

Key Trends And Developments:

The political outlook in Egypt will remain in flux, with significant risks of popular protests as the interim government attempts a return to elected government. However, we believe that the worst of the recent crisis has passed, and we expect modest improvements on the political front over the coming months. Whilst beset by significant challenges and frequent protests, the interim government of President Adly Mansour has shown a degree of policy continuity which has been absent in Egypt for much of the year. In fact, several public-private partnerships (PPP) have moved forward. In addition, the government has gained significant political capital on the back of improvements in the security situation and the ending of food and fuel shortages.

There are two important flashpoints which could see a significant uptick in political risks and violence. The first is the referendum on the constitution currently being finalised, which we expect to occur in late January. The second risk is parliamentary and presidential elections, which we expect to occur in Q214. We see an increasing likelihood that General Abdel Fatah el-Sisi will run in presidential elections in 2014. If so, we would expect him to win comfortably, given the large groundswell of support he has attracted from the public, but also crucially within the political elite and army. We maintain our view that he and the army will remain the dominant political actors in Egypt for the foreseeable future and we expect them to continue supporting infrastructure development in the country. As a result, Egypt has gained one position in our Risk/Reward Ratings, going from 47.6 in Q413 to 48.1 in Q114.

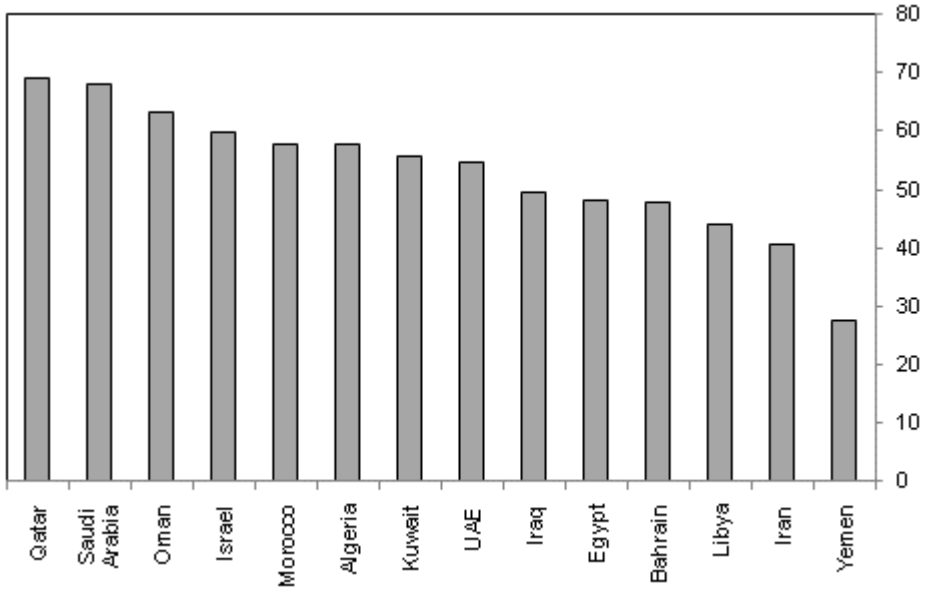
We retain a generally positive view of the GCC's prospects in 2014, and expect the region to be the outperformer in the Middle East and North Africa. However, the sheer size of GCC members' ambitious infrastructure spending programmes, particularly in Saudi Arabia and Qatar, are leading to shortages, delays

and price inflation, which we expect to continue and even accelerate over the medium term. These weaknesses will be under increased pressure from Qatar's World Cup preparations, a recovery in the UAE's construction sector, Dubai winning the rights to host the World Expo, and huge investment being ploughed into rail projects.

Israel continues to prove the least risky country in the region with a strong country risk score of 72.8, well above the regional average of 56.4. However, in terms of rewards, Israel scores a much weaker 54.3. With some progress in the Iran/US nuclear talks and an extremely promising gas market, we expect Israel's rewards score to continue to strengthen.

Leadership Unchanged

MENA Infrastructure R/R Ratings Q114



Source: BMI

Despite Risks, Opportunities Abound In The GCC

The GCC countries - Qatar, Saudi Arabia, Oman, UAE, Baharain and Kuwait - continue to outperform the region in terms of both high rewards and low risks. The majority of GCC countries (except Saudi Arabia) have relatively small construction industries, yet a strong stream of sovereign wealth propped projects

backed up by, relatively, transparent institutions means that investors will continue to benefit from these countries for the foreseeable future.

On the back of the announcement of a number of mega-projects (all with a fixed, no-fail, 2022 deadline), Qatar stormed to the top of our ratings at the start of 2012 and has remained comfortably there since then. We believe that the country has made a credible commitment to infrastructure spending, and that its expenditure will reach over US$150bn over the next five years, providing a significant boon to companies looking to invest in the region. However, we identify a potential downside risk to Qatar's business environment derived from recent accusations of poor worker conditions. The country has seen its labour market come under the international media spotlight and we expect this trend to continue. A jump in the number of deaths on construction sites has attracted criticism towards Qatar's World Cup preparations.

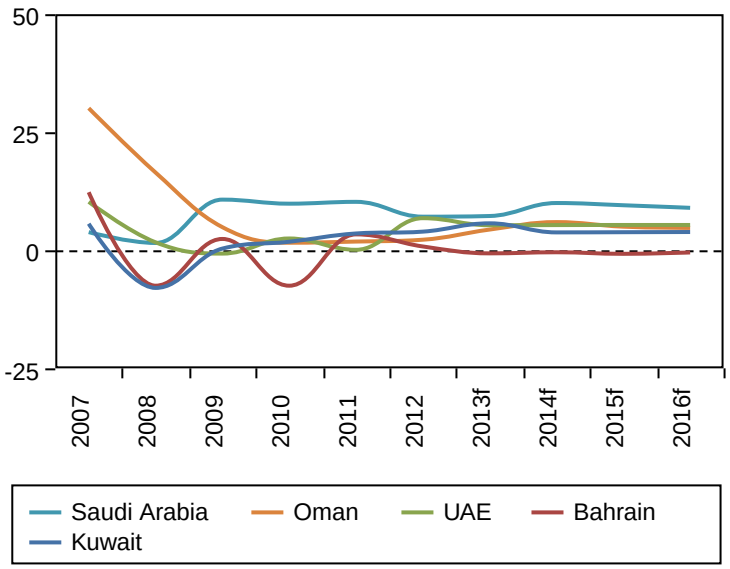
Saudi Arabia construction labour market has also made the headlines. The 'Saudisation' policy, which is a drive to replace expat workers with Saudi nationals, while at the same time removing illegal migrants, has seen hundreds of thousands of people leave the Kingdom. We believe that the construction industry is going to be one of the hardest hit by this policy, with contractors estimating that 80% of construction projects will face delays as a direct consequence of the labour shortages the policy has created (*see 'Labour Laws To Undermine GCC's Largest Market?', 1st August 2013*).

Although the Saudi labour market represents a downside risks to our ratings, the country continues to perform well on the back of a strong project pipeline as part of the kingdom's US$385bn Development Plan. In addition, we believe that incremental reforms, partially affected by pressures unleashed during the Arab Spring, have the potential to raise the country's business environment ratings for the foreseeable future.

Bahrain and the UAE have both reported weaker scores this quarter. Although Bahrain continues to benefit from oil receipts, we note that risks are still latent in the form of social and political stability, eroding confidence in Bahrain's construction market. In turn, the UAE continues to report strong activity in the construction sector as a result of significant public spending and a growing tourism sector. However, we are now seeing a moderated scale of future projects, in line with a more realistic demand picture.

Strong Potential For Growth

GCC Countries Construction Industry Growth, % chg y-o-y



f = BMI forecast. Source: SAMA, Ministry of National Economy/Central Bank of Oman, UAE National Bureau of Statistics, Ministry of Finance, Central Bank of Kuwait, BMI.

Note: Qatar has not been included as its high construction industry growth distorts the chart.

Volatility To Undermine Potential In North Africa

The major political upheavals of the Arab Spring have been a reminder of the pivotal role that political risk plays in shaping the infrastructure landscape for investors. Here, Syria, Libya and Egypt serve as poignant examples.

Gulf countries, and to a lesser extent the US, have shown a significant interest in the region's infrastructure development. This growing interest in North Africa is reflected in Morocco's upswing, with many trying to secure first mover advantage. In fact, Morocco has gained two positions in our ratings this quarter, scoring 57.8 in Q114 from 53.2 in Q413. The markets hold huge potential in energy infrastructure and projects flowing from national (re)construction efforts. The risks from a still politically uncertain environment remain, as evidenced by Egypt.

Iraq And Iran Remain Stable

In this quarter, Iran has slightly improved its score from 40.3 to 40.5, maintaining its second lowest position in our regional rankings. Despite our bearish outlook for the country as a result of the challenging macroeconomic picture and the opaque regulatory environment, we see an upside risk in the recent interim agreement on the nuclear issue and the partial relief of sanctions. Iran and the 5+1 powers clinched a landmark interim deal on the Islamic Republic's nuclear programme in November 2013, paving the way for a partial easing of sanctions.

In turn, Iraq maintains its score of 49.6, below the regional average of 53.1. Iraq scores well in terms of rewards, fuelled by a huge rise in housing, transport and energy infrastructure contracts. The country's risks score, on the other hand, continues to be among the weakest. This is partly explained by an increase in sectarianism and an uptick in violence.

Table: MENA Infrastructure Risk / Reward Ratings

	Rewards			Risks				
	Industry Rewards	Country Rewards	**Rewards**	Industry Risks	Country Risk	**Risks**	**Infrastructure Risk Rewards Rating**	**Regional Ranking**
Qatar	65.0	74.2	**68.2**	75.0	67.7	**70.6**	**68.9**	**1**
Saudi Arabia	70.0	58.3	**65.9**	75.0	70.8	**72.5**	**67.9**	**2**
Oman	60.0	60.7	**60.2**	82.5	61.8	**70.1**	**63.2**	**3**
Israel	40.0	80.9	**54.3**	75.0	71.4	**72.8**	**59.9**	**4**
Morocco	60.0	61.8	**60.6**	55.0	48.9	**51.3**	**57.8**	**5**
Algeria	67.5	44.7	**59.5**	47.5	57.6	**53.6**	**57.7**	**6**
Kuwait	42.5	71.3	**52.6**	57.5	65.8	**62.5**	**55.6**	**7**
UAE	50.0	57.3	**52.6**	45.0	68.6	**59.2**	**54.5**	**8**
Iraq	62.5	39.7	**54.5**	32.5	41.9	**38.1**	**49.6**	**9**
Egypt	42.5	54.8	**46.8**	55.0	48.4	**51.0**	**48.1**	**10**
Bahrain	22.5	65.8	**37.6**	77.5	68.0	**71.8**	**47.9**	**11**
Libya	52.5	36.7	**47.0**	32.5	40.8	**37.5**	**44.1**	**12**
Iran	37.5	42.7	**39.3**	35.0	48.5	**43.1**	**40.5**	**13**
Yemen	27.5	18.3	**24.3**	37.5	34.5	**35.7**	**27.7**	**14**
Regional Average	***50.0***	***54.8***	***51.7***	***55.9***	***56.8***	***56.4***	***53.1***	**-**

Source: BMI

Market Overview

Competitive Landscape

Iran's business environment remains opaque and difficult to penetrate for any outside investors. China and Russia are, by and large, the only two countries with a continued international presence. Both countries have vested interests in Iran, in terms of geopolitics and commodities trade, and therefore have contributed heavily to fund major infrastructure projects.

Most projects have so far been geared towards Iran's relatively well developed transport system. There are 8,442km of railways, most of which are single-track, and 198,866km of roads, 80% of which are paved. There are many airports in the country, although the majority have unpaved runways.

Furthermore, Iran has a number of ports, though many areas of the Caspian Sea and Persian Gulf are politically sensitive. The waters around the islands of Abu Musa and the Tunbs in the southern Persian Gulf are particularly sensitive and are militarised. Normalising international relations would allow Iran to attract investment into its ports and benefit significantly from international trade.

In terms of the domestic construction industry, it has been criticised for having poor building standards. Constructors are unwilling to invest money in modern technologies, building codes are widely disregarded, and municipal governments have failed to enforce them or to run a proper inspection system.

Table: Iran EQS Data

Name	Latest FY Earnings	Market Cap (US$)	Revenue (US$)	Net income (US$)	Total Debt/ Ebitda	Interest Coverage Ratio	PE Ratio
Bilfinger SE	Dec-12	5,266.303	10,941.26	353.4872	1.707243	7.822981	20.70545
China Gezhouba Group Co LT-A	Dec-12	2,208.42	8,254.318	247.6403	6.677619	2.591556	8.436346
China National Chemical-A	Dec 12	5,089.435	8,395.218	488.7223	0.311833	47.44522	8.86802
China Railway Group Ltd-H	Dec 12	8,696.189	7,3796.21	1,165.524	8.12287	1.407216	6.826981
Daelim Industrial Co Ltd	Dec 13	2,591.969	8,031.004	434.3072	2.713558	6.568131	7.696721
Maire Tecnimont Spa	Dec 12	665.7642	2,745.7	-266.959	n/a	-5.02842	n/a
Saipem Spa	Dec 12	10,246.03	17,190.87	1,159.86	2.604491	10.57857	n/a
Power Construction Corp OF-A	Dec 12	4,460.17	19,660.74	648.8914	5.735591	2.066717	6.588511
Vinci SA	Dec 12	39,862.99	50,384.72	2,464.638	3.6664	4.910429	13.81047
Shanghai Construction Group	Dec 12	n/a	14,469.45	253.5607	6.159889	3.884851	n/a

na = not available. Source: Bloomberg

Company Profile
Iran Power Plant Projects Management Co. (Mapna)

Strengths

- Mapna is one of the largest contractors of power and industrial projects in Iran, with 29 subsidiary companies.
- Iran's government is reportedly planning heavy investment in the electricity sector.
- Well diversified by sector.

Weaknesses

- Sanctions, coupled with the global economic downturn and high inflation have helped to create a dire fiscal situation in Iran, which restricts public investment in infrastructure.

Opportunities

- With Iranian electricity demand rising rapidly, there is scope for constructing new power plants, and Mapna is at the forefront of this.

Threats

- International pressure on Iran regarding its nuclear ambitions could derail the economy and restrict Mapna's international expansion.

Company Overview

Mapna, formed in 1993, is a major state-owned Iranian industrial conglomerate with 29 subsidiaries operating in the power, oil, railway and infrastructure sectors. In terms of infrastructure, the company specialises in power, oil and gas, and petrochemicals projects, as well as railway transportation projects. The company has also expanded into operational and maintenance services to enable it to secure more international projects.

Strategy

Mapna's strategy appears to be one of international expansion. As well as power plants in Sri Lanka and India, the company has also been awarded the contract for the 324MW Najaf power plant, as well as the 324MW Al-Emarah Power plant, both of which are in Iraq. BMI believes that the reconstruction of Iraq could be a strong area of growth for Mapna, as the country looks to repair its shattered infrastructure.

However, Mapna's biggest projects remain in Iran. These include the Khouzestan Steel Complex Combined Cycle Power Plant, which will have a capacity of 968MW. The company is also negotiating a major deal to construct a massive combined-cycle power

plant with a capacity of 2,100MW. Indeed, of Mapna's current order book of 25 projects only one is located outside Iran. With the country's growing demand for electricity, we believe Mapna's main focus will be domestic over the forecast period.

Recent Developments

Recent Activity And Projects

In January 2014, it was announced that Mapna signed a contract with the National Iranian South Oilfields Company (NISOC) to produce 250 raw materials of Rolls-Royce turbine in the next twenty months.

According to Fars News Agency, Mapna was awarded the construction of a new gas refinery in Qeshm Island in July 2013. The refinery will have a capacity of 80mn cubic feet of gas per day and the company is expected to invest US$200mn in the project.

Also, in June 2013, Mapna offered to start supplying Pakistan with electricity in order to prevent an energy crisis. According to the Daily Times, Pakistan's currently shortfall is 7,000MW and Mapna has the capacity to produce up to 10,000MW for the neighbouring country. This could be the beginning of a series of investments of Mapna in Pakistan's infrastructure.

In 2011, Mapna signed a development contract with NIOOC for the production of gas and generation of electricity at Fourz B gas field.

In the last few years, Mapna has financed 10 independent power projects (IPPs), including the South Isfahan (954MW), Tous (954MW) and Asalouyeh (954MW) plants. It is also in the process of developing the Mobin Gas Utility Power Plant (1,944MW), as well as power plants in Sri Lanka and Syria. In addition, in September 2008, Mapna agreed a deal with Iran National Petrochemical (NPC) to construct the first phase of the EUR1.2bn Damavand Petrochemical Complex. NPC is to provide 80% of the funding, with Mapna supplying the remainder.

Mapna has also been active in the rail sector for 15 years and is currently completing a project involving the construction of 200 locomotive units, through a partnership with Germany's Siemens. Mapna is also contracted to produce three locomotives per month for the Iran Railway Company.

In late 2009, Iran's government announced it would need to construct power plants generating 26,500MW of energy in the next five years in order to meet electricity consumption rates. Annual consumption has been growing at 8% a year according to the Iranian Energy ministry. Such an ambitious expansion plan could result in numerous contracts for Mapna, which has built the majority of Iran's current electricity grid. However, in the same period, the Energy Ministry approved EUR880mn in financing from the oil stabilisation budget to develop independent power plants and independent providers started producing electricity; a paradigm shift could see Mapna take on fewer contracts.

Abbas Aliabadi, the managing director of the group, said to Zawya in July 2013 that the group owns power plants that produce 8,000MW of electricity of which 2,000 MW

pertain to Parand and Sanandaj power plants. He also added that the government debt to Mapna had reached IRR30tr in March 2013 that if paid, would be an important liquidity source for the firm.

Since 1993, the company has undertaken projects worth EUR17bn, in terms of power projects, and has been responsible for building 86% of Iran's total grid capacity, representing 52,000MW. Turnover is about EUR4bn per year.

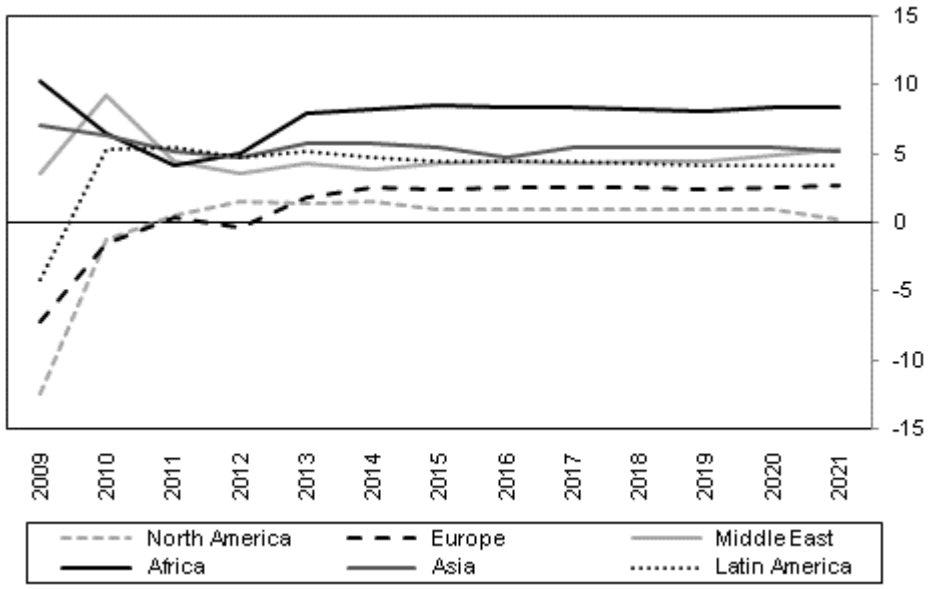
Global Infrastructure Overview

Africa In 2014: PPPs Cement Global Appeal

Sub-Saharan Africa (SSA) looks set to continue to offer the highest growth rates for construction globally over the coming years - with real growth averaging 8.3% annually to the end of our forecast period in 2023. That said, endemic risks across the region remain prevalent and will continue to offset the potential gains for those wishing to take advantage of the multitude of opportunities on offer. As part of this growth story we have indentified three key trends which will support our forecasts over 2014 and emerge as driving factors for infrastructure development. These trends are the continued development of the public-private partnership (PPP) model across the continent, massive investment into the cement industry to satisfy demand and the increasing presence of other emerging market players in the development of African infrastructure.

Africa's Potential Clear

Regional Construction Industry Real Growth (% Change year-on-year)



Source: BMI

PPP Proliferation Proceeds

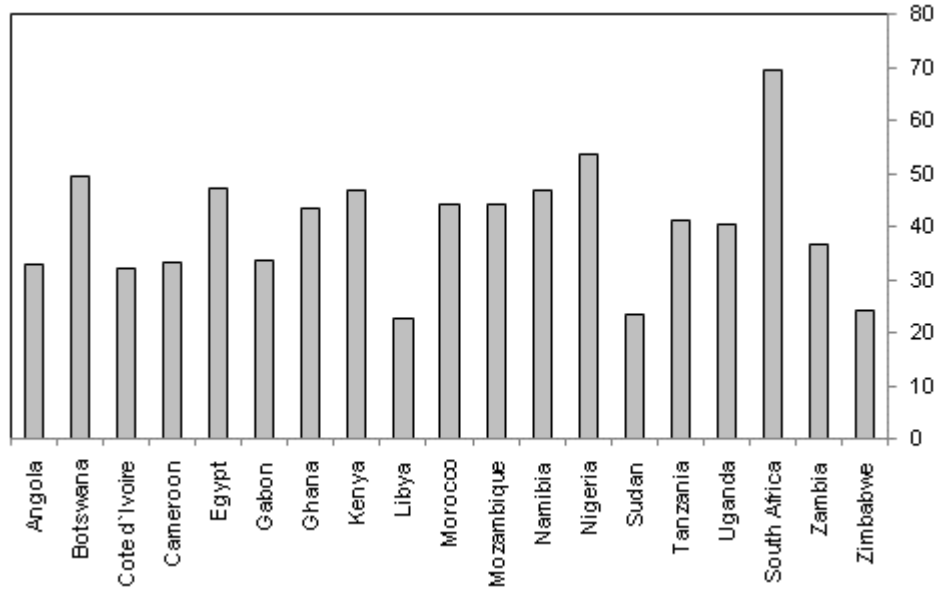
The further proliferation of the PPP model in Africa remains one of our trends to watch over the coming year, as an increasing number of African nations pursue project development through private players. Whilst PPPs are already used across the continent, insufficient bureaucratic capacity within African governments' PPP units has often resulted in projects falling victim to technical delays, allegations of corruption and cost overruns. However, we have seen an increasing amount of PPP legislation being passed and frameworks developed to better implement projects - and increase their attractiveness to players with private capital. Notably **Kenya** adopted its Public Private Partnerships Act in 2013, which bodes well for two subsequent PPP projects in the pipeline. The most successful countries thus far have been **Côte d'Ivoire**, **Cameroon**, **Ghana** and **Namibia**. Côte d'Ivoire in particular is seeking out alternative and creative financing methods in order to open up financing to enable private sector players to take up projects.

The proliferation of the PPP model goes hand-in-hand with our view that African governments will increasingly be able to fund their own infrastructure projects, as opposed to relying on international aid and Chinese financing. To finance these PPPs and other public works projects, robust economic growth and low global bond yields have allowed a number of African countries to go to the debt markets to raise funds; an option unavailable to most even five years ago. Eurobond issuances have taken off over the past 12 months in SSA, and more are planned for 2014. Most include at least a partial allocation for infrastructure, with many fully earmarked for the sector.

While these opportunities remain attractive, and rewards could be substantial, risks remain the highest globally (with SSA posting the lowest average in our Project Finance Ratings). Given the long-term nature of PPPs, this is a major deterrent for investors. Risks, both regulatory and political, subdue international investor interest. In an attempt to mitigate these risks, we have seen a number of initiatives to increase access to private sector capital in Africa. One of the most promising has been the World Bank's Africa50 vehicle. One of the main aims of the initiative is to make infrastructure projects more attractive to financiers by making skilled legal, technical and financial experts available to projects from an early stage of development. It is hoped that better planned and executed projects will incur fewer delays, legal costs and limit the potential for corruption, thus lowering the risks for investors.

Risks Remain Elevated, But PPPs Spread

BMI African Project Finance Ratings



Source: BMI. Scores 0-100, 100 being

Cement Investment A Sign Of Things To Come

From cement majors to local players, there is huge investment planned for the cement industry over 2014, which will significantly boost capacity. We expect that frontier markets will garner particularly strong interest due to their growing economies but minimal existing capacities. We highlight **Angola**, Cameroon, Ghana and **Zambia** as key locations in which cement producers are ramping up investment into the cement industry.

That said, investment is going into the sector across the continent. Nigerian conglomerate **Dangote** plans to boot its cement production capacity to 55mn tonnes per annum by 2016, with new plants planned in Niger, Zambia, Cameroon, Kenya, Ethiopia and South Africa - all expected to be under construction in 2014. South Africa's **PPC** plans to expand in Ethiopia, Rwanda, Zimbabwe and the Democratic Republic of the Congo (DRC). Indicating that the growth potential of African cement is attractive, Africa features heavily in major producer **Heidelberg**'s capacity expansion plans for 2014, with new plants planned in Ghana, Burkina Faso, Togo and Tanzania, whilst other locations are still under consideration.

The increase in cement capacity across the continent bodes well for our construction industry forecasts, as producers feel confident in the growth potential in Africa. We expect that increasing numbers of cement plants will be built, owing to poor transport infrastructure and the fact that accessing remote locations raises the cost of importing cement or shipping it from a small number of large plants.

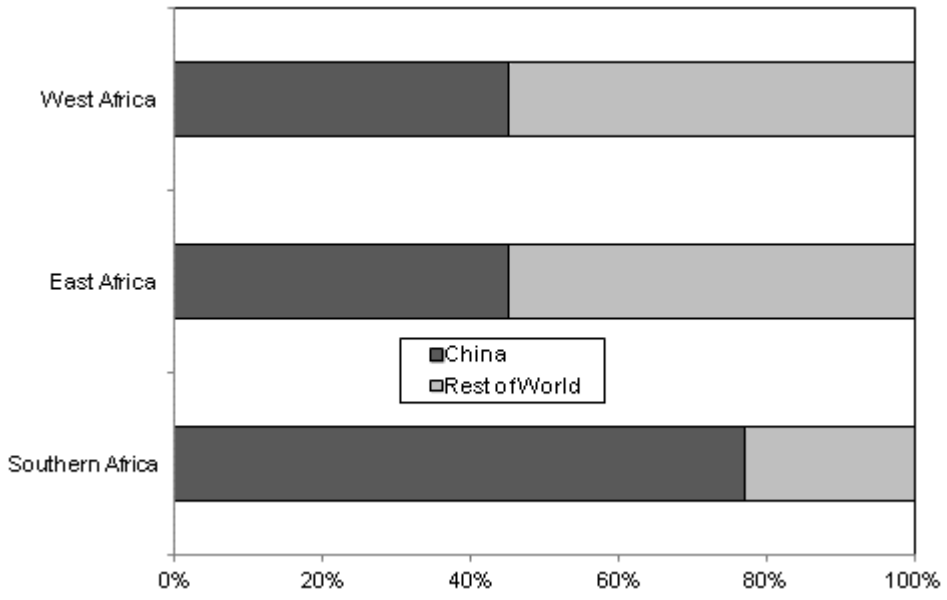
Following The Chinese Into Africa

Our final trend to highlight for 2014 is that, following a number of pledges of investment in 2013, international players, particularly from other emerging markets, will increase their exposure to Africa as risk premiums fall.

Brazilian companies have held dominant market positions in lusophone African countries (namely Angola and Mozambique) for some time. Now, in line with a broader global expansion strategy, we are seeing these companies expanding their focus outside of their traditional remit, with West Africa at the forefront of this trend. Ghana in particular is benefitting from an influx of Brazilian construction players and capital. Currently, Ghana follows only Angola and Mozambique in terms of construction market share of Brazilian companies, with US$600mn-worth of projects being developed in Ghana by Brazilian companies. Ghana is, therefore, likely to be the first step under a broader strategy by Brazil's biggest construction players to expand their geographical presence in Africa.

Others Look To Where China Has Gone

Percentage Market Shares



Source: BMI/ENR

In East Africa, it is the BRIC nations which are increasing their presence by targeting the efforts to better integrate the region's transport network. Both Russia and Brazil have shown interest in funding and developing the LAPSEET corridor project. Ethiopia looks set to benefit from Indian investment in developing its road and rail capacity and connections with Djibouti, whereas Mozambique has seen Indian capital pledged for power and transport projects.

Other Asian nations, particularly Japan and South Korea, look to repeat the Chinese model in the search to secure resources. South Korea has increased its foreign aid to Liberia with a view to improving the infrastructure of the country - notably one of the few in which China's presence is not too heavily felt. Similarly South Korean companies are increasingly active on the continent, looking to tap the growing opportunities not automatically accorded to Chinese firms.

However, it is Japan which has set about asserting itself more in Africa and looks set to carry on doing so. In June, Japan's Prime Minister Shinzo Abe announced US$32bn in funding for Africa over a five-year period (including an undefined portion for infrastructure). This follows an announcement in May in which

Japan pledged US$2bn to develop infrastructure around Africa's natural resources, capitalising on rising anti-Chinese sentiment in light of its African investment strategy.

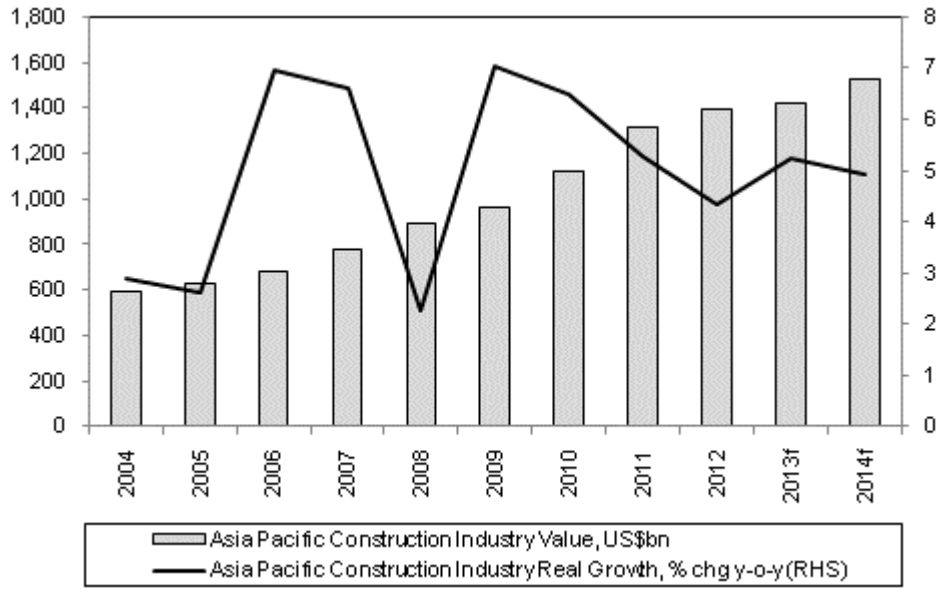
Asia-Pacific In 2014: Shaping Up To Be A Benign Year

BMI View: *Our outlook for the Asia Pacific construction market in 2014 is relatively benign against the historical average, where lingering uncertainties towards the outlook for the global economy could prevent the region from maximising its construction potential. We have identified five trends that we believe will play out in the Asia Pacific construction market in 2014. They are the growing relevance of the more developed markets in Asia towards regional construction growth, lower capital costs, considerable project opportunities, pertinent business environment risks and greater financing invention due to weaker government fiscal positions.*

Our outlook for the Asia Pacific construction market in 2014 is benign relative to the historical average, with our forecasts for construction growth in 2014 similar to the historical ten-year average (4.9% versus 5.0%). Although several countries have seen political risks subside following the conclusion of elections and remain focused on addressing their infrastructure and building deficits, there are still considerable difficulties in translating pledged investment into actual construction activity. Coupled with the numerous uncertainties that cloud the outlook for the global economy, these conditions have the potential to stifle financing for new construction projects and hamper project implementation in 2014. That said, despite these concerns the Asia-Pacific region is still expected to outperform the global construction market, which is forecast to grow by just 3.5% in 2014.

Indifferent Outlook

Asia Pacific - Construction Industry Value Forecasts



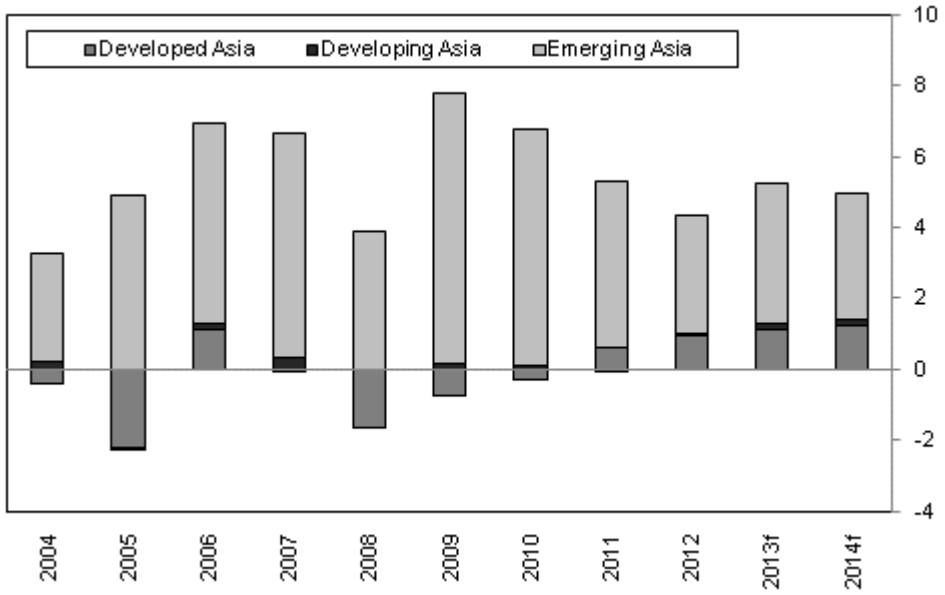
e/f = BMI estimate/forecast. Source: BMI, Various State Agencies

In this analysis, we will review the current prospects for the construction market in the Asia Pacific region, highlighting some of the key themes that we expect to unfold over the course of 2014.

Developed States Increasingly Relevant: While we are projecting Asia's construction growth in 2014 to be relatively similar to the historical ten-year average, the drivers of this activity continue to change. Hong Kong, Singapore, South Korea, Taiwan, Australia, Japan, and New Zealand are becoming increasingly relevant to the region's growth performance. These markets are expected to contribute to 27.9% of Asia's overall construction growth in 2014, compared to an average contribution of -0.7% per annum between 2004 and 2013.

Changing Composition

Asia Pacific - Contribution To Construction Industry Value Real Growth, By Key Sub-Groups, Percentage Points



Developing Asia: Hong Kong, South Korea, Singapore, Taiwan. Developed Asia: Australia, New Zealand, Japan. e/f = BMI estimate/forecast. Source: BMI, Various State Agencies

We believe that this trend has arisen due to two factors: a sharp cutback in capital expenditure in China, the biggest contributor to construction activity among Asian emerging markets, but more importantly, increased opportunities among these developed markets. An unusually high number of natural disasters among the developed countries in 2011 have heavily damaged existing infrastructure and a large portion of the reconstruction effort, particularly in Japan and New Zealand, has yet to be completed. Meanwhile, Taiwan, Singapore, Hong Kong are implementing major plans to improve inter- and intra-transport links after years of perennial underinvestment.

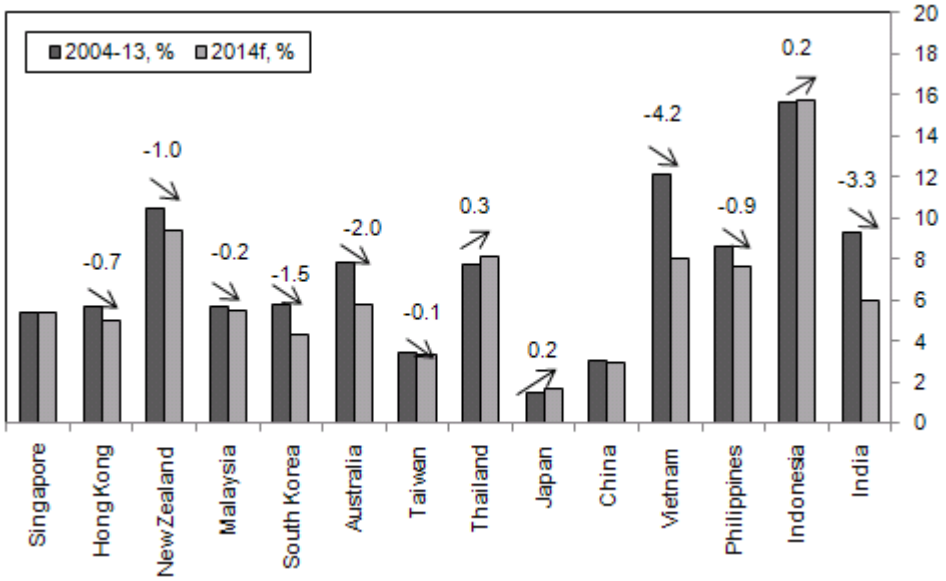
We also highlight that the recent electoral victories by the Liberal Democratic Party in Japan and the Liberal-National coalition in Australia have increased the potential for a broad-based improvement in policy formation and construction-project execution in two of the largest developed markets in Asia.

More Conducive Monetary Backdrop: We expect the cost of capital across Asia in 2014 to be lower than over the past ten years. Most Asian countries have adopted a looser monetary policy to spur economic

activity - India and Vietnam are expected to register the greatest decline in domestic lending rates among Asian economics - and this could reignite private sector interest in construction in 2014.

Lower Capital Costs

Asia Pacific - Lending Rates, 2014 And 10-Year Historical Average (2004-2013), %

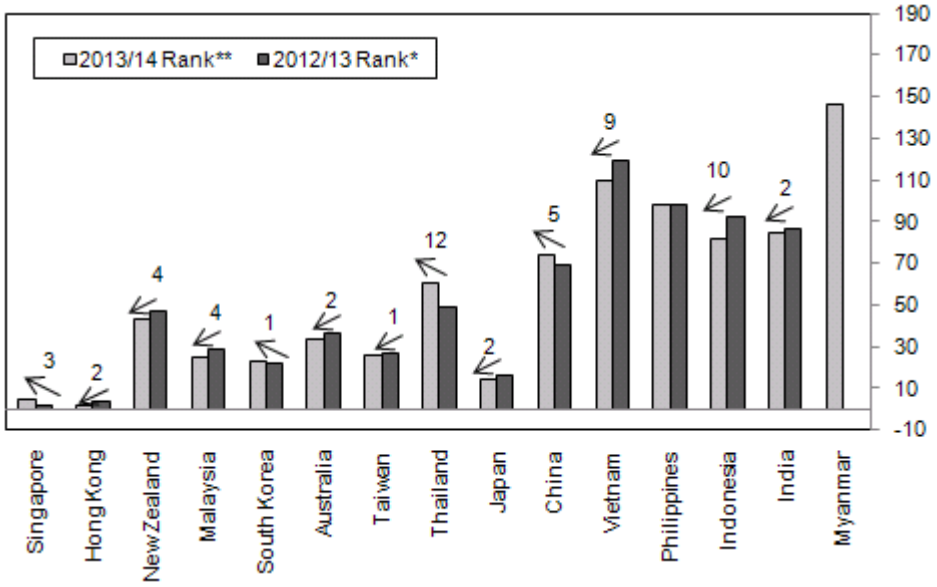


e/f = BMI estimate/forecast. Source: BMI, Various State Agencies

Considerable Project Opportunities: We expect project opportunities in Asia's infrastructure and construction sectors to remain considerable in 2014. Although government fixed capital expenditure in the region is not expected to clock the highs seen during the stimulus-driven 2008-09 recovery (due to China's spending reductions on infrastructure), Asia's infrastructure and building needs are still massive and many Asian governments remain keen to address this deficit.

Still Lacking

Asia Pacific - Quality Of Infrastructure, By Country, 2012 And 2013



**Out of 144 Countries. **Out of 148 Countries. Note: Lower Rank = Higher Quality. Source: World Economic Forum Global Competitiveness Report 2012/13, 2013/14*

Most of the infrastructure-building programmes introduced by emerging economies in Asia (particularly in South East Asia) to attract private investors are gaining momentum - for example, Indonesia's Master Plan for the Acceleration and Expansion of Indonesian Economic Development, Malaysia's Economic Transformation Programme, and Philippines' Public Private Partnership (PPP) Programme. These emerging economies have also ramped up capital spending for all types of infrastructure to record highs, while developing and developed countries in Asia are ramping up spending to address transport bottlenecks and rebuild disaster-hit infrastructure, respectively.

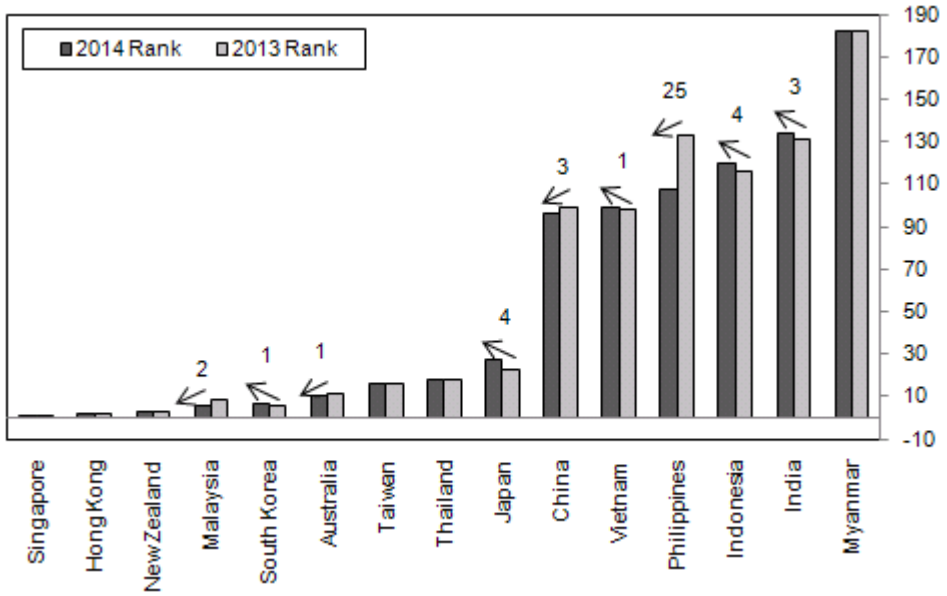
China's capital expenditure plans will also still be significant and will mostly likely dwarf allocations in all other emerging markets. Even though the Chinese central government is increasingly targeting economic growth driven by private consumption and not by fixed asset investment, the latter - particularly into infrastructure sector - continues to be viewed by the central government as the easiest way to generate a satisfactory economic growth rate in the near term. For example, the Chinese government increased its railway investment target for the 12th Five-Year Plan (2011-2015) by CNY500bn (US$14bn) to CNY3.3trn.

Lastly, many Asian governments (we highlight China, Singapore, Hong Kong and Malaysia) are channelling funds into public housing as record-high housing prices create social problems for these countries.

Business Environment Risks Remains Pertinent: We believe that business environment issues (such as red tape, land acquisition, environmental clearances and deficits in institutional capacity and regulatory framework) are still a major problem in several emerging markets in Asia. This is despite some countries taking significant steps to resolve these regulatory bottlenecks (such as the breakup of the Ministry of Railways to reduce red tape and increase operational transparency for investors) or making attempts to do so (such as the parliamentary approval of a new land acquisition bill in India). Many of these flaws are deeply ingrained in their bureaucratic system and require years for reforms to mature and fully resolve them. These countries also need years to train the necessary human resources to boost instructional capacity. As such, these issues could take many years to be resolved.

Investment Challenges Abound

Asia-Pacific - Ease of Doing Business Rankings, By Country, 2013 And 2014, Out Of 189 Countries.



Note: A Higher Ranking Denotes A Poorer Business Environment. Source: BMI, World Bank

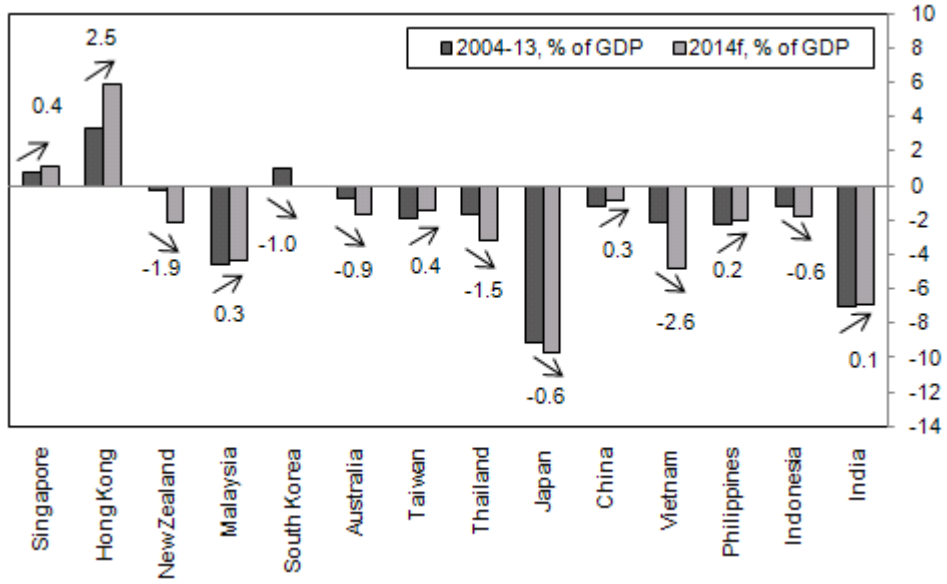
Weaker Fiscal Position Prompts Financing Invention: We expect most Asian countries to run historically high fiscal shortfalls as they could continue to find it difficult to decrease their welfare spending

(such as in Thailand, Indonesia and India) or be obliged to pay for the excesses of their state-owned enterprises (such as in China and Vietnam).

This weaker fiscal position not only undermines investor confidence, but also affects their ability to finance their infrastructure plans in two ways. Firstly, these governments would have to continue to channel funds into supporting non-development expenditure at the expense of infrastructure development. Secondly, demand for their sovereign bonds could wane on the back of a weaker fiscal picture, making it more costly for them to secure debt to support their subsidy schemes and capital expenditure plans.

Greater Debt

Asia Pacific - Budget Balance, 2014 And 10-Year Historical Average (2004-2013), % of GDP



e/f = BMI estimate/forecast. Source: BMI, Various State Agencies

It has prompted some of them to privatise public fixed assets to raise financing for their capital expenditure plans and utilise non-traditional business mechanisms to garner private sector investment. These mechanisms include the use of Islamic bonds, infrastructure funds, financial assistance schemes (such as takeout financing and viability gap funding) and new PPP models that reduces project risks to private investors (such as an equity investment from the private sector). We expect both trends to take greater prominence in 2014.

Latin America In 2014: A Prosperous Year For Infrastructure Development

BMI View: *Latin America continues to be a highly attractive destination for investment in infrastructure. The region is seeing high levels of activity in the transport and energy sectors and the Public-Private Partnership (PPP) model looks set to continue to play a leading role. In addition, improvements to the regulatory environment are being implemented in order to better mitigate a number of downside risks. As such, our outlook for 2014 remains broadly positive, although we highlight that several risks remain pertinent to investing in Latin America in the upcoming year.*

Latin America presents a diverse array of markets, which offer opportunities but also challenges in the infrastructure market. Although we like the region as whole, we draw attention to the fact that each country offers a very unique set of conditions. However, we identify the following common themes which will be prevalent over 2014:

- PPP model continues to gain momentum
- Regulations to adapt to meet industry challenges
- We do not anticipate radical changes to overall business environments
- Delays on environmental permits, land ownership issues and relations with local communities will continue to be among the main risks to investment in the region

PPPs Role Continues To Strengthen In Hand With New Regulation

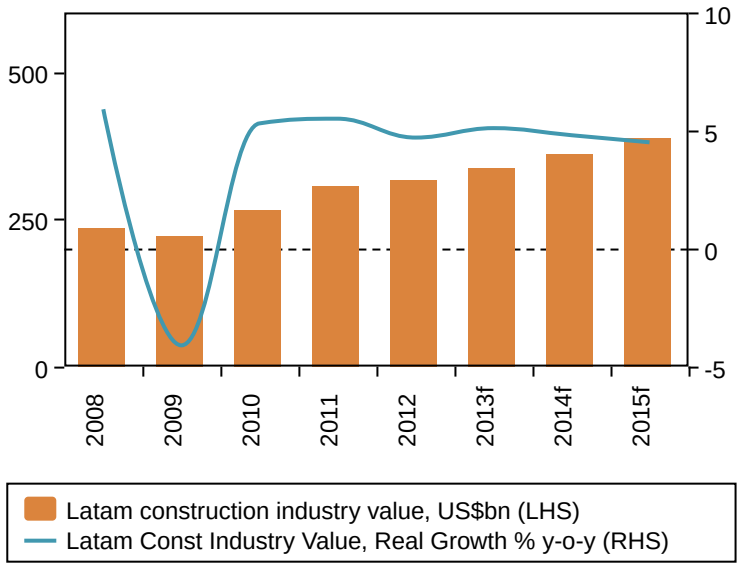
The strengthening of the PPP model in Latin America is a sign of growing confidence in the market. The model's increasing popularity bodes well for future investment in the region as several governments open up their infrastructure sector to private investment in order to share the financial burden, better manage the risk, but most importantly to attract expertise where institutional capacity is weak. At the moment, Latin America is undertaking some of the most challenging construction works that would have previously been unthinkable without the involvement of the private sector. These include ports in Mexico, hospitals in Chile, airports in Brazil, public transport in Peru, and an ambitious road network in Colombia. Indicative of the success of the model, countries without a PPP framework in place have subsequently started to develop one - Paraguay finally approved a PPP law in November after four years of negotiations.

As a general trend, higher levels of economic growth in the region have led central governments to prioritise infrastructure development in order to increase competitiveness and improve living standards. The strong momentum in the industry will be maintained through 2014 on the back of a robust project pipeline

and strong government support. As such, PPPs will continue to play a major role in 2014 allowing the construction of technically challenging, high-cost projects.

Sustained Growth

Latin America Construction Industry Value (US$bn) And Real Growth %



F = BMI forecast. Source: Central Banks/National Statistics Agencies of Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, Trinidad&Tobago, Venezuela. BMI

Regulatory Improvements

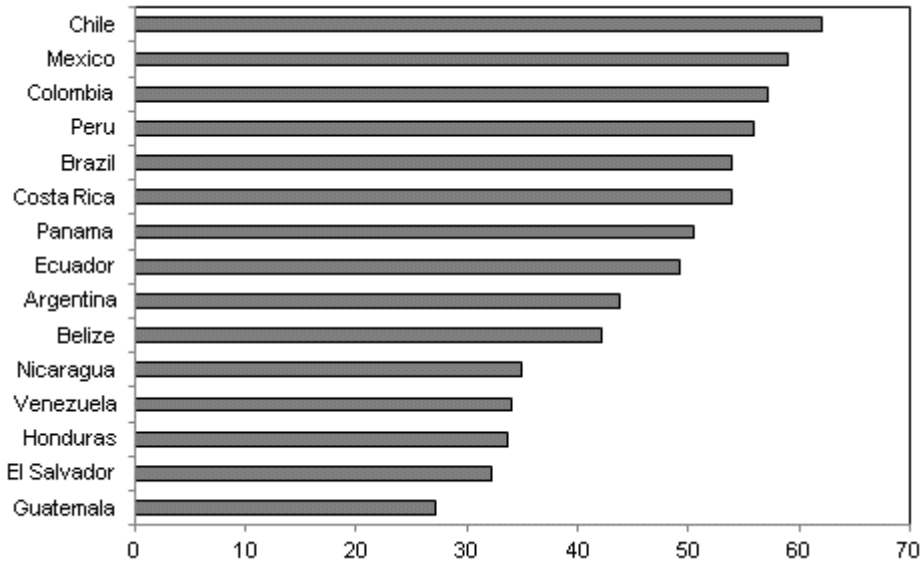
In terms of changes in regulation, we highlight progress made by President Enrique Peña Nieto in Mexico with a bill to liberalise the energy sector (to be approved by December 15). The new legislation is expected to benefit construction industry companies such as **Empresas ICA** which is highly exposed to the energy sector-related infrastructure operations. Also in Colombia, President Juan Manuel Santos recently signed a bill to speed up land purchasing and environmental permits for infrastructure projects of national interest. The new law - which is pending approval from the Constitutional Court - is expected to be implemented soon.

No Major Surprises But Familiar Risks

We do not anticipate radical changes for 2014 in terms of outperformers and underperformers in the region. On top of our Risk Reward Ratings (RRRs), we expect Chile, Mexico, Colombia and Peru to continue to lead as they offer the best compromise between risks and rewards. In terms of underperforming markets, Venezuela, Honduras, El Salvador and Guatemala are likely to remain at the bottom of our rankings. The political outlook in Venezuela is not particularly promising; President Maduro continues to strengthen his hold on power while acting as a deterrent to private investment. In turn, structural weaknesses in some of the Central American economies are unlikely to be solved in the short term. As for the Caribbean, we do not anticipate high levels of construction industry growth as weak economic outlooks and high levels of external leverage suggest that, in the absence of exchange rate flexibility, it is only a matter of time before another small-island economy in the Caribbean defaults.

Regional Outperformers Stay On Top

Latin America Risk/Reward Ratings



Source: BMI

Although we anticipate the region will remain largely stable in 2014, we highlight the potential risk of upcoming elections and potential instances of public unrest. Next year, presidential elections will be held in

Costa Rica, El Salvador, Panama, Colombia, Brazil, Uruguay, and Bolivia. Although we do not expect the elections to have a significant impact on infrastructure development, a change of leadership in countries like Brazil is bound to have an impact on the business environment. In addition, we are keeping track on the progress in the peace process in Colombia which is expected to be completed in 2014. If successful, we expect to see an increase in foreign interest in the country's infrastructure development.

Unsurprisingly, the capacity of several Latin American states to deal with the calibre and pace of current infrastructure projects continues to be limited. As such, we anticipate some of the familiar challenges of investing in emerging markets to remain in 2014. Risks vary depending on the market, but delays in the granting of environmental permits, land ownership issues, and opposition from local community groups to continue to be present challenges to infrastructure projects.

MENA In 2014: Reaping Rewards Despite Risks

BMI View: *2014 is set to be an important year for infrastructure in the Middle East and North Africa. With massive government expenditure plans, these markets are some of the fastest growing in the world, whilst weaker markets have entered recovery after a tumultuous few years.*

Key trends we identify for 2014 which will dictate this growth story include:

- **High risk, high reward markets will become increasingly attractive**, especially for regional construction companies;
- The **GCC will suffer capacity constraints** in light of a boom in activity;
- And a number of **political risks will come to a head in 2014** which could either boost or undermine market growth potential.

High Risks, High Rewards?

Having to pay a risk premium has always come with operating in the MENA region. However, after a turbulent decade of war and revolution, the risk premiums have risen dramatically for a number of markets; namely Iraq, Libya and Egypt. There have been upticks in violence in Iraq and Libya over recent months, and political turmoil continues to threaten stability in Egypt. However, instead of descending into economic ruin, these markets present some of the biggest construction growth markets in the region. Not only is the repair and reconstruction of existing infrastructure a top government priority, but buoyed by hydrocarbon revenues, international assistance and pressure from restive populations, infrastructure deficits are beginning to be addressed.

In 2013 **Aecom** returned to Libya to assist with the reactivation of billions of dollars worth of pre-revolution contracts and implement the investment of Libya's oil wealth into new infrastructure projects. European companies such as **Salini Impregilo** have already begun to take advantage of this and we expect that others will follow suit in 2014 (*see 'Salini Impregilo's Risky Markets Paying Off', 25 November*).

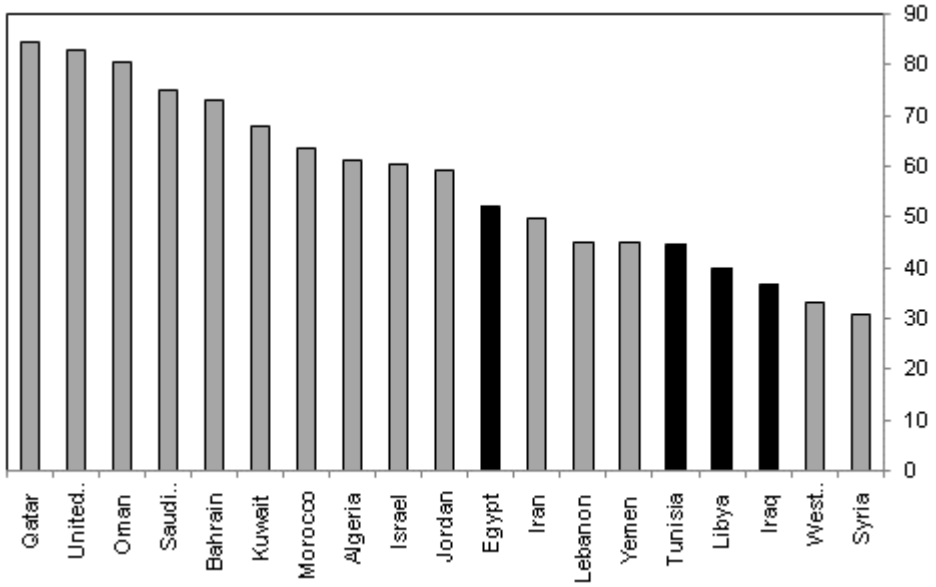
Growth in Iraq will be among the strongest in the region over the 2014-2018 period, averaging 8.1% y-o-y, as the government looks to address power and housing deficits. Additionally, the outperformance of the Kurdish region of Iraq is one of our views we expect to continue to proliferate over the course of 2014 (*see 'Kurdish Stability Attracts Tourists, Creates Opportunities', 21 June*).

For Egypt, despite uncertainty, the market's appeal appears to still be in place as a number of public-private partnership projects have moved forward and investors seem keen to enter the market. Saudi Arabia's persistent interest in Egypt demonstrates that investors from neighbouring Arab countries are less sensitive to the political risk generated by regime change in the country. As such, Gulf-based (and Turkish) firms are investing in the region, and we believe that these firms will be well placed to capitalise on stability, when it is achieved.

Overall we see that in light of government aims to placate populations with high infrastructure spending, coupled with existing infrastructure deficits, we should see much in terms of construction industry growth - enough to make the high risk markets appealing to those with enough appetite.

Unexpected Opportunities

BMI's Short Term Political Risk Ratings, %



Source: BMI, Higher scores = lower risk

GCC - Victim Of Own Success

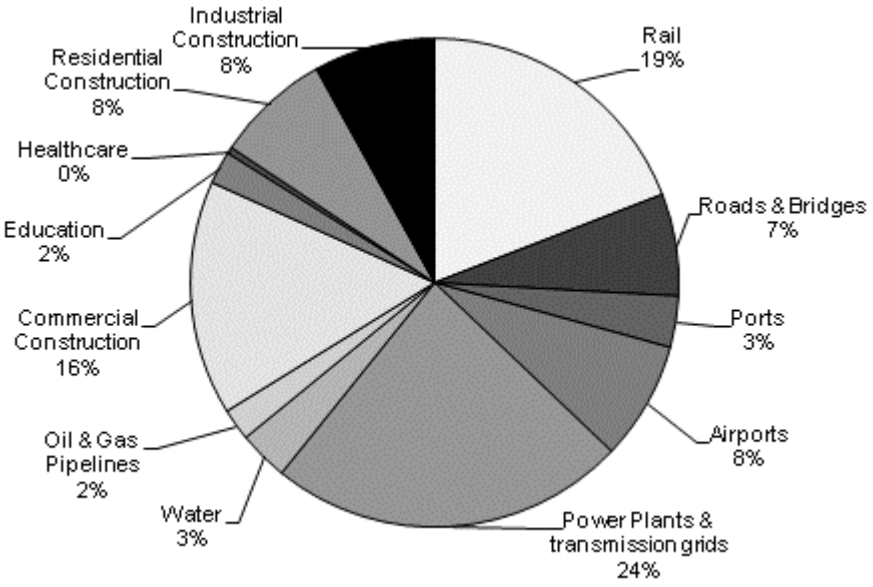
We retain a generally positive view of the GCC's prospects as we head into 2014, and expect the region to be the outperformer in the Middle East and North Africa. However, the sheer size of GCC members' ambitious infrastructure spending programmes, particularly in Saudi Arabia and Qatar, are leading to shortages, delays and price inflation, which we expect to continue and even accelerate over 2014. With Qatar's World Cup preparations, a recovery on the cards in the UAE's construction sector and Dubai winning the World Expo, and huge investment being ploughed into rail projects, demand for construction materials is set to soar. EC Harris reports that Qatar alone could experience price inflation of 18% in the construction sector. Whilst over the medium term we expect regional cement production capacity will increase to match demand, especially in Saudi Arabia, over 2014 and 2015 at least we expect to see shortages of cement, tarmac and other materials.

Demand for highly skilled workers, project managers and engineers is also exceptionally high in the region, with many projects held up in light of a lack of oversight. Also, demand has drawn in influx of expat labour

into the GCC, which has exacerbated already severe housing shortages. Again over 2014, we expect these issues to continue, although more housing projects are coming online as confidence in real estate increases and domestic project management capabilities are increasing.

Rail and Power Investment Like Nowhere Else

Sector Share Of Key Projects Value



Source: BMI Key Projects Database

Coupled with this problem is the issue of construction labour, which the GCC has long been under pressure from due to accusations of poor worker conditions. 2013 in particular has seen labour come under the international media spotlight, and we expect that 2014 will continue this trend. A jump in the number of deaths on construction sites has attracted criticism towards on Qatar's World Cup preparations. Elsewhere, programmes of promoting private sector employment to indigenous populations whilst cracking down on illegal migrant workers has seen millions of construction workers leave the GCC. Felt most acutely in Saudi Arabia, Kuwait and Oman, the increased costs of stricter labour rules will likely impact firms throughout 2014.

Political Risk Key To Outlook

A number of political issues are likely to dictate the direction of the MENA region's construction industry, as how they play out will dictate investor confidence in a number of markets. The revolutions which swept North Africa are still preventing markets such as Tunisia from fully recovering following their revolutions. Presidential and parliamentary elections, initially set to take place in 2013, are unlikely in our view to be held before H214. Recent developments also highlight the fragility of the security situation. A suicide bomb attack in the Tunisian tourist resort of Sousse on October 30, the first such assault in more than a decade, is an episode which is likely to hit the all-important tourism sector. Additionally, after being pushed out of Mali into the Sahel region, Algeria and Libya in particular have been targeted by Islamist terrorism. After the January 2013 attack on the In Amenas facility, this has particularly affected investment and operations from international oil companies, which is a key driver of construction industry growth in the region. A situation in flux does not present an attractive investment climate, which is what the construction industry in North Africa needs.

Elsewhere, the affect of improving relations between Iran and the West could yield better market conditions in both Iran and the GCC in 2014. Although tentative at present, further rapprochement and warming of relations could not only see an increase in trade between the GCC and Iran, as the GCC is a key exporter to Iran, but also see construction activity pick up surrounding this trend. However, if the deal surrounding Iran's nuclear ambitions fails, we could see the region enter a tense period which may damage investor perceptions. In particular, due its vehement opposition to Iran's nuclear capabilities, Saudi Arabia may escalate tensions in the region.

Finally, tensions between Baghdad and Erbil within Iraq remain high as the Kurdish regional government pursues its own energy agenda. Despite protests from Baghdad, a number of international oil companies have moved operations into the Kurdish region, which subsequently threatens the vitally important oil revenues for Baghdad. Whilst the construction sector in Kurdistan is booming, supported by private investment, the construction industry in the rest of Iraq is heavily dependent on government funding. As such, should relations between Baghdad and Erbil continue to sour, we are less likely to see a deal which would see oil revenues shared, which poses significant downside risk to Baghdad's ambitious infrastructure and housing investment plans.

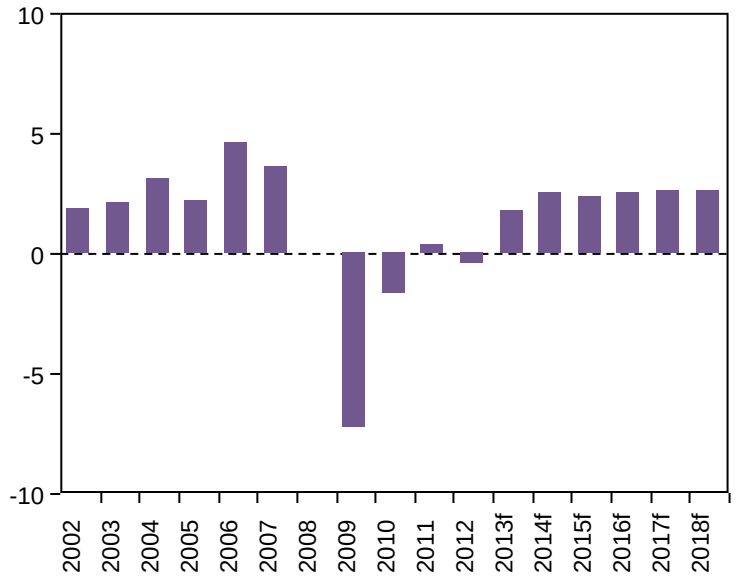
North America And Europe In 2014: Turning A Corner

BMI View: *Long considered the laggard in the global infrastructure space, the European and North American construction sectors should experience a continuation of the turnaround which took hold in late 2013. Stable to positive outlooks are becoming increasingly frequent across the region as a whole, and therefore we do not expect a triple dip recession in the European construction industry, with growth to accelerate to 2.5% for the region in 2014, versus 1.8% estimated for 2013.*

This turnaround will be facilitated by an expansion of capital for the sector, although not from pre-recession sources. Instead, the EU, supported by the European Investment Bank (EIB), as well as institutional capital both through direct investments and private equity funds, should support projects. Broadly speaking, developed markets will drive growth in North America and Europe 2014; however, we remain uncertain over the sustainability of this trend over the medium term.

Turning A Corner

Europe Construction Industry Real Growth, % y-o-y



f=BMI forecast, Source: Central Banks, National Statistics, BMI

Our key themes for the North American and European construction markets for 2014 are:

- The **EU and EIB will continue to play a crucial role in supporting infrastructure investment in Europe**, especially in the periphery;
- Whilst substantial **capital pledged through private equity funds will buoy investment into infrastructure in Western Europe and North America**.
- **Developed markets to play a crucial role in the region's construction sector growth** performance.
- **Emerging European recoveries to remain fragile** and construction growth will trend below pre-crisis highs.

EU and EIB will continue to play a crucial role in supporting infrastructure investment in Europe

With the European banking sector unlikely to experience an expansion and infrastructure financing constrained by new banking regulations, traditional sources of project finance - absent since the financial crisis - will remain elusive in 2014.

Stepping in to fill this void has been the EU in conjunction with the EIB. We believe their role in European infrastructure finance will only accelerate in 2014 in line with a number of new programmes.

Outlined in 2013, the Connecting Europe Facility (CEF) will support Projects of Common Interest under the Trans European Transport and Energy Networks (TEN-T and TEN-E) scheme. The EUR29.3bn plan will run between 2014 and 2020 and support European infrastructure projects through direct loans as well as preferential access to EIB loans and capital guarantees, in the form of project bonds, risk capital or enhanced loans.

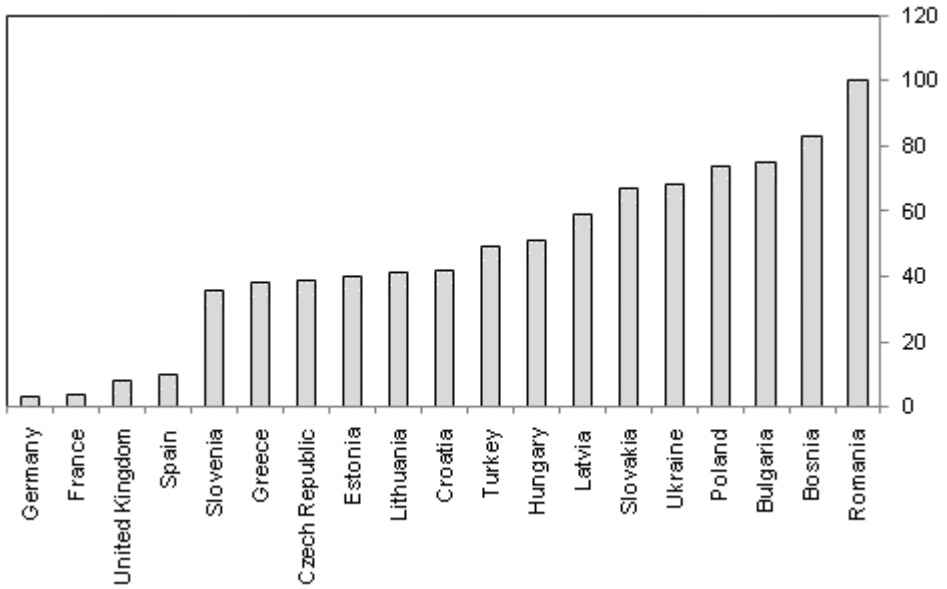
One of the major areas of focus of the CEF is the energy sector. In October the EU outlined 248 energy Projects of Common Interest, with a price tag of EUR9.1bn, these projects will benefit from EUR5.12bn in CEF funding, with the remainder to be supported by EIB funding. Energy projects will be a key area of priority for the EU over the near term, as the region struggles to balance its green energy agenda with rising electricity prices and capacity concerns. As such, policy clarification along with improving the region's security of supply and better integration of energy infrastructure will be a focus over 2014.

Complementing the CEF facility is the Europe 2020 Project Bond Initiative, which is a joint initiative of the EC and the EIB. The venture, launched in November 2012, aims to provide credit enhancement for infrastructure public-private partnerships (PPPs), in particular TEN-T and TEN-E projects and high speed

broadband. The initiative works by providing credit enhancement to improve the credit quality of project bonds in order to attract institutional investors with high investment thresholds. It will do this by taking a subordinated debt in the project company, in order to elevate the credit quality of the senior debt.

Levelling The Playing Field

Competitiveness Of Infrastructure, Rank Out Of 148



Source: World Economic Forum, Global Competitiveness Report, 2013-14

The mandate of these programmes will necessitate that much of the financing support is directed outside of the more developed markets. TEN-T and TEN-E projects are designed to better integrate periphery countries into the region through improving inter-regional connectivity, reducing bottlenecks, filling in missing links. Periphery countries remain considerably behind their developed European peers in terms of infrastructure quality, and thus we expect 2014 this acceleration of EU and EIB financing support for infrastructure weighted towards projects in emerging Europe.

Capital pledged through private equity funds will buoy investment into infrastructure in Western Europe and North America

Whilst emerging European infrastructure development will be predominantly sponsored by the EU and EIB, we expect an acceleration in the level of institutional investors and private equity investments into Western European and North American infrastructure assets in 2014.

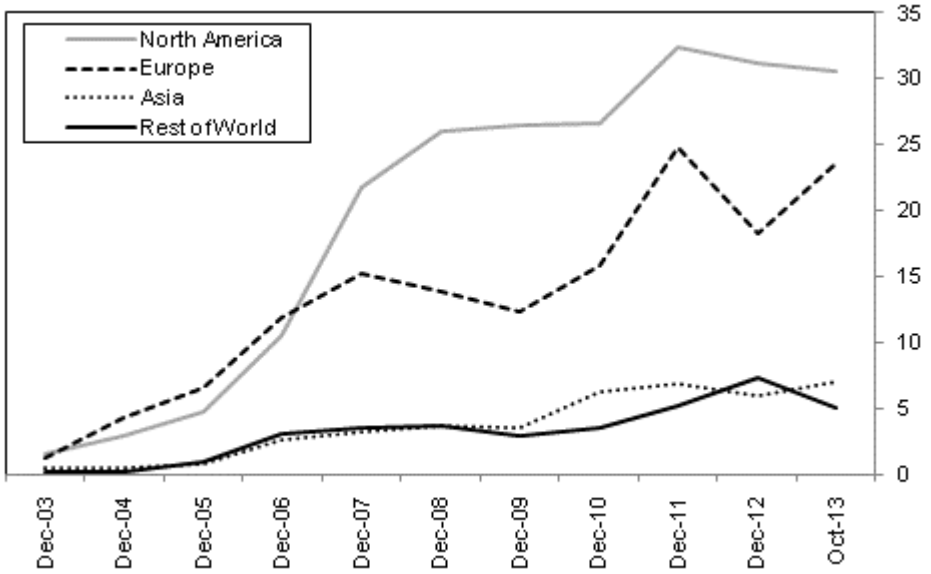
2013 saw a substantial expansion in the amount of capital raised by infrastructure funds, with impressive closes reached by many (Brookfield Infrastructure Fund II closed the second largest fund ever with US$7bn raised). European-focused infrastructure fundraising has seen a considerable expansion in 2013, with EUR9.1bn raised as of October 22 2013, versus EUR4.8bn over 2012 and just EUR2.6bn in 2011 (according to Preqin data). Infrastructure fundraising is benefiting from the number of institutional investors that are either turning to the asset class for the first time, or are increasing their infrastructure mandate.

In addition to institutional investors increasing infrastructure allocations through private equity funds, many are going direct into the sector, supported by government measures to entice greater capital into the market. European and US institutional investors are increasingly looking to compete with their Canadian peers who are leaders in direct investments into infrastructure. In the UK for example, the government has encouraged investment from both pension funds and the insurance industry, the latter of which announced plans in December 2013 to invest GBP25bn into infrastructure in the UK.

The net impact is considerably more capital available for infrastructure investment in 2014 and over the medium term. Indeed, the majority of funds and direct investors are targeting North America and Western Europe, and therefore we expect increased competition for high quality assets in the regions. Indeed, the key risk seems not to be capital availability, rather the number and quality of opportunities on offer. We expect therefore to see considerable competition for high quality, regulated assets in the region over 2014.

Clear Regional Preference

Unlisted Infrastructure Fund Dry Powder, By Regional Focus, EURbn



Source: Preqin

Developed markets to play a crucial role in the region's construction sector growth

In line with a sustained focus by investors on the developed markets in Europe and North America, we also expect these countries to be the major engines of construction sector growth. Indeed, the US and Canada have been global developed market outperformers since 2012, and we expect Europe to follow suit in 2014.

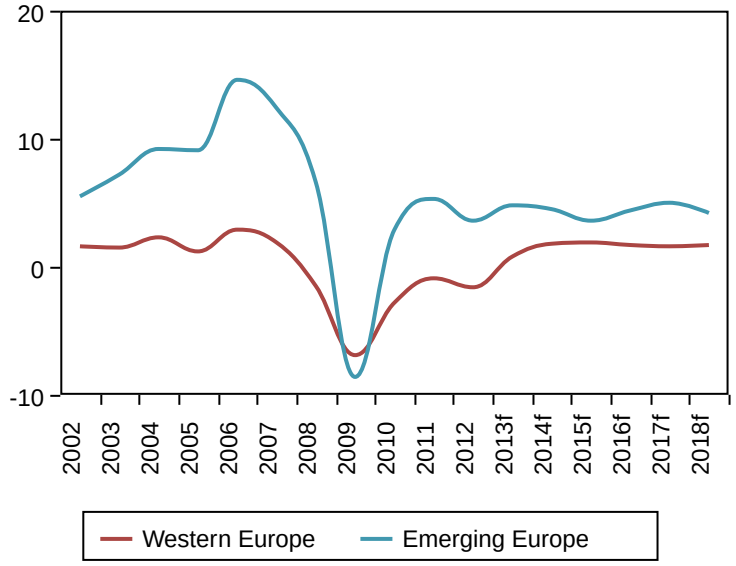
Following deep recessions over recent years which saw Europe's largest construction markets act as a net drag on overall industry performance, 2013 saw many of the major construction markets in the region return to growth. As such, the developed markets in Europe are becoming increasingly important to the regional's overall growth and we believe this will continue into 2014, supported by a broader improvement in the Eurozone economic picture.

In 2014 we are anticipating a turnaround in Germany, a continued revival in the UK construction sector, and sustained growth in France and Italy. However, Spain and Greece will continue to be the developed market laggards, with growth to return only in 2015 and 2017 respectively.

Whilst growth in the developed market region should return to pre-crisis levels in 2014, we highlight less certainty over the medium term for sustained robust growth rates. Both Germany and the UK have seen strong growth in the second half of 2013 and we expect growth rates to remain elevated in 2014, and potentially through to 2015. However, sustaining growth beyond the near term will depend on the governments' abilities to implement ambitious infrastructure investment plans.

Emerging Europe To Trend Lower

Emerging And Western Europe, Construction Industry Value Real Growth, % y-o-y



f=BMI forecast, Source: National Statistics, Central Banks, BMI

Emerging European recoveries to remain fragile

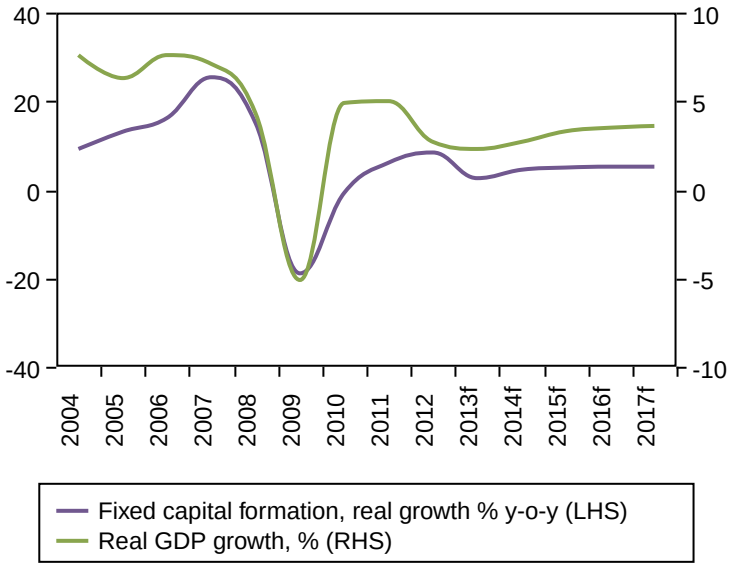
Conversely, growth will be far more volatile in emerging Europe. Although positive growth will return more broadly across the region, with growth rates expected to outperform those in developed market peers, it will trend substantially lower than pre-crisis levels.

In order to support more sustainable infrastructure investment over the medium term, outside of EU-mandated projects, structural improvements are needed in the economies of emerging Europe. Economies across the region are struggling to recover from the financial crisis, with private consumption rates

remaining weak; this is weighing on domestic demand for infrastructure. At the same time, the region is losing competitiveness, in part due to high electricity costs, and this is weighing on demand for infrastructure from industrial users and foreign investors. Consequently, with low existing capacity utilisation and weak demand across the region, infrastructure investment is unlikely to be a priority. Indeed, whilst we see austerity measures easing, infrastructure investment is likely to remain constrained, as governments focus on measures which will improve private consumption.

Rebound Unsustainable?

Emerging Europe Economic Data



f=BMI forecast, Source: National Statistics, Central Banks, BMI

Methodology

Industry Forecast Methodology

BMI's ndustry forecasts are generated using the best-practice techniques of time-series modelling and causal/econometric modelling. The precise form of model we use varies from industry to industry, in each case being determined, as per standard practice, by the prevailing features of the industry data being examined.

Common to our analysis of every industry, is the use of vector autoregressions. Vector autoregressions allow us to forecast a variable using more than the variable's own history as explanatory information. For example, when forecasting oil prices, we can include information about oil consumption, supply and capacity.

When forecasting for some of our industry sub-component variables, however, using a variable's own history is often the most desirable method of analysis. Such single-variable analysis is called univariate modelling. We use the most common and versatile form of univariate models: the autoregressive moving average model (ARMA).

In some cases, ARMA techniques are inappropriate because there is insufficient historic data or data quality is poor. In such cases, we use either traditional decomposition methods or smoothing methods as a basis for analysis and forecasting.

We mainly use OLS estimators and in order to avoid relying on subjective views and encourage the use of objective views, we use a 'general-to-specific' method. **BMI** mainly uses a linear model, but simple non-linear models, such as the log-linear model, are used when necessary. During periods of 'industry shock', for example poor weather conditions impeding agricultural output, dummy variables are used to determine the level of impact.

Effective forecasting depends on appropriately selected regression models. We select the best model according to various different criteria and tests, including but not exclusive to:

- R^2 tests explanatory power; adjusted R^2 takes degree of freedom into account
- Testing the directional movement and magnitude of coefficients
- Hypothesis testing to ensure coefficients are significant (normally t-test and/or P-value)
- All results are assessed to alleviate issues related to auto-correlation and multi-collinearity

BMI uses the selected best model to perform forecasting.

It must be remembered that human intervention plays a necessary and desirable role in all of our industry forecasting. Experience, expertise and knowledge of industry data and trends ensure that analysts spot structural breaks, anomalous data, turning points and seasonal features where a purely mechanical forecasting process would not.

Sector-Specific Methodology

Construction Industry

Construction Industry Value

Our data is derived from GDP by output figures from each country's national statistics office (or equivalent). Specifically, it measures the output of the construction industry over the reported 12-month period in nominal values (ie domestic currency terms). As it is derived from GDP data, it is a measure of value added within the industry (ie the additional contribution of the construction industry over other industries, such as cement production). Consequently, it does not measure the nominal value of all inputs used in the construction industry, which, for most states would increase the overall figure by 50-60%. Furthermore, it is important to note that the data does not provide an indication of the total value of a country's buildings, only the construction sector's output in a given year.

This data is used because it is reported by virtually all countries and can therefore be used for comparative purposes.

Construction Industry Value Real Growth

Our data and forecasts for real construction measures the real increase in output (rather than nominal growth, which would also incorporate inflationary increases). In short, it is an inflation-adjusted value of the output of the construction industry year-on-year. Consequently, real growth will be lower than the nominal growth of our 'construction value' indicator, except in instances where deflation is present in the industry.

Data for this is sourced from the constant values for construction value added, using the same sources noted above. We use officially calculated data to accurately account for inflation specific to the construction industry.

Construction Industry, % Of GDP/Construction Value (US$)

These are derived indicators. We use BMI's Country Risk team's GDP and exchange rate forecasts to calculate these indicators.

Capital Investment

Total Capital Investment

Our data is derived from GDP by expenditure data from each country's national statistics office (or equivalent). It is a measure of total capital formation (excluding stock build) over the reported 12-month period. Total capital formation is a measure of the net additions to a country's capital stock, so takes into account depreciation as well as new capital. In this context, capital refers to structures, equipment, vehicles etc. As such, it is a broader definition than construction or infrastructure, but is used by **BMI** as a proxy for a country's commitment to development.

Capital Investment (US$), % Of GDP, Per Capita

These are derived indicators. We use our Country Risk team's population, GDP and exchange rate forecasts to calculate them. As a rule of thumb, we believe an appropriate level of capital expenditure is 20% of GDP, although in rapidly developing emerging markets it may, and arguably should, account for up to 30%.

Government Capital Expenditure

This is obtained from government budgetary data and covers all non-current spending (ie spending on transfers, salaries to government employees, etc). Due to the absence of global standards for reporting budgetary expenditure, this measure is not as comparable as construction/capital investment.

Government Capital Expenditure, US$bn, % Of Total Spending

These are derived indicators.

Construction Sector Employment

Total Construction Employment

This data is sourced from either the national statistics office or the International Labor Organization (ILO). It includes all those employed within the sector.

Construction Employment, % y-o-y; % Of Total Labour Force

These are derived indicators.

Average Wage In Construction Sector

This data is sourced from either the national statistics office or the ILO.

Infrastructure Data Sub-Sectors

BMI's Infrastructure data examines the industry from the top down and bottom up in order to calculate the industry value of infrastructure and its sub-sectors. We use a combination of historic data as reported by the central banks, national statistics agencies and other official data sources, and **BMI**'s Infrastructure Key Projects Database tool.

Where possible we source historic data for the relative portion of either infrastructure spend or value generated by the various sub-sectors we classify as infrastructure. We seek to segment official infrastructure data into pre-set categories classified by us, across all countries, in order to optimise the ability to compare industry value across the sub-sectors of infrastructure. We then apply ratios to the infrastructure subsector value in order to derive the value. Real growth is calculated using the official construction inflation rate.

In those instances where historic data is not available, we use a top down and bottom up approach incorporating full use of **BMI**'s Infrastructure Key Projects Database, in most cases dating back to 2005. This allows us to calculate historical ratios between general infrastructure industry value and its sub-sectors, which we then use for forecasting. Our Key Projects Database is not exhaustive, but it is comprehensive enough to provide a solid starting point for our calculations.

The top down approach uses data proxies. We have separated countries into three tiers. Each tier comprises a group of countries on a similar economic development trajectory and with similar patterns in terms of infrastructure spending, levels of infrastructure development and sector maturity. This enables us to confirm and overcome any deficiencies of infrastructure-specific data by applying an average group ratio (calculated from the countries for which official data exists) to the countries for which data is limited.

- Tier I - Developed States. Common characteristics include:
  - Mature infrastructure markets;
  - Investments typically target maintenance of existing assets or highly advanced projects at the top of the value chain;
  - Infrastructure as percent of total construction averages around 30%.
  - Tier I countries: Canada, Germany, Greece, UK, US, France, Hong Kong, Taiwan, Singapore, Israel, Japan, Australia.
- Tier II - Core Emerging Markets. Common characteristics include
  - The most rapidly growing emerging markets, where infrastructure investments are a government priority;
  - Significant scope for new infrastructure facilities from very basic levels (eg highways, heavy rail) to more high value projects (renewables, urban transport);
  - Infrastructure as percent of total construction averages around 45% and above.
  - Tier II countries: Colombia, Malaysia, Mexico, South Korea, Peru, Philippines, Turkey, Vietnam, Poland, Hungary, South Africa, Nigeria, Russia, China, India, Brazil, Indonesia.
- Tier III- Emerging Europe. Common characteristics include:
  - Regional socioeconomic trajectories;
  - Development defined by recent or pending accession to European structures such as the EU. Infrastructure development to a large degree dictated by EU development goals and financed through vehicles such as the PHARE and ISPA programmes, and institutions such as the EBRD and EIB;
  - Infrastructure as percent of total construction averages between 30% and 40%.
  - Tier III countries: Czech Republic, Romania, Bulgaria, Slovakia, Slovenia, Estonia, Latvia, Lithuania, Croatia, Ukraine.

This methodology has enabled us to calculate infrastructure industry values for states where this was not previously possibly. Furthermore, it has enabled us to create comparable indicators.

The top down hypothesis-led approach has been used solely to calculate the infrastructure industry value as a percentage of total construction. For all sub-sector calculations we apply the bottom-up approach, ie calculating the ratios from our Key Projects Database where data was not otherwise available.

Risk/Reward Rating Methodology

BMI's Risk/Reward Ratings (RRR) provide a comparative regional ranking system evaluating the ease of doing business and the industry-specific opportunities and limitations for potential investors in a given market.

The RRR system divides into two distinct areas:

Rewards: Evaluation of sector's size and growth potential in each state, and also broader industry/state characteristics that may inhibit its development. This is further broken down into two sub categories:

- Industry Rewards (this is an industry-specific category taking into account current industry size and growth forecasts, the openness of market to new entrants and foreign investors, to provide an overall score for potential returns for investors).
- Country Rewards (this is a country-specific category, and the score factors in favourable political and economic conditions for the industry).

Risks: Evaluation of industry-specific dangers and those emanating from the state's political/economic profile that call into question the likelihood of anticipated returns being realised over the assessed time period. This is further broken down into two sub categories:

- Industry Risks (this is an industry-specific category whose score covers potential operational risks to investors, regulatory issues inhibiting the industry, and the relative maturity of a market).
- Country Risks (this is a country-specific category in which political and economic instability, unfavourable legislation and a poor overall business environment are evaluated to provide an overall score).

We take a weighted average, combining market and country risks, or market and country rewards. These two results in turn provide an overall Risk/Reward Rating, which is used to create our regional ranking system for the risks and rewards of involvement in a specific industry in a particular country.

For each category and sub-category, each state is scored out of 100 (100 being the best), with the overall Risk/Reward Rating a weighted average of the total score. Importantly, as most of the countries and territories evaluated are considered by us to be 'emerging markets', our rating is revised on a quarterly basis. This ensures that the rating draws on the latest information and data across our broad range of sources, and the expertise of our analysts. Our approach in assessing the risk/reward balance for infrastructure industry investors globally is fourfold:

- First, we identify factors (in terms of current industry/country trends and forecast industry/country growth) that represent opportunities to would-be investors.

- Second, we identify country and industry-specific traits that pose or could pose operational risks to would-be investors.
- Third, we attempt, where possible, to identify objective indicators that may serve as proxies for issues/ trends to avoid subjectivity.
- Finally, we use **BMI**'s proprietary Country Risk Ratings (CRR) in a nuanced manner to ensure that only the aspects most relevant to the infrastructure industry are incorporated. Overall, the system offers an industry-leading, comparative insight into the opportunities/risks for companies across the globe.

Sector-Specific Methodology

In constructing these ratings, the following indicators have been used. Almost all indicators are objectively based.

Table: Infrastructure Risk/Reward Rating Indicators

Indicator	Rationale
Rewards	
Industry rewards	
Construction expenditure, US$bn	Objective measure of size of sector. The larger the sector, the greater the opportunities available.
Sector growth, % y-o-y	Objective measure of growth potential. Rapid growth results in increased opportunities.
Capital investment, % of GDP	Proxy for the extent the economy is already oriented towards the sector.
Government spending, % of GDP	Proxy for extent to which structure of economy is favourable to infrastructure/
Country rewards	
Labour market infrastructure	From BMI's Country Risk Ratings (CRR). Denotes availability/cost of labour. High costs/low quality will hinder company operations.
Financial infrastructure	From CRR. Denotes ease of obtaining investment finance. Poor availability of finance will hinder company operations across the economy.
Access to electricity	From CRR. Low electricity coverage is proxy for pre-existing limits to infrastructure coverage.
Risks	
Industry risks	
No. of companies	Subjective evaluation against BMI-defined criteria. This indicator evaluates barriers to entry.
Transparency of tendering process	Subjective evaluation against BMI-defined criteria. This indicator evaluates predictability of operating environment.
Country risks	
Structure of economy	From CRR. Denotes health of underlying economic structure, including seven indicators such as volatility of growth; reliance on commodity imports, reliance on single sector for exports.
External risk	From CRR. Denotes vulnerability to external shock - principal cause of economic crises.
Policy continuity	Subjective rating from CRR. Denote predictability of policy over successive governments.

Infrastructure Risk/Reward Rating Indicators - Continued	
Indicator	**Rationale**
Legal framework	From CRR. Denotes strength of legal institutions in each state. Security of investment can be a key risk in some emerging markets.
Corruption	From CRR. Denotes risk of additional illegal costs/possibility of opacity in tendering/business operations affecting companies' ability to compete.

Source: BMI

Weighting

Given the number of indicators/datasets used, it would be inappropriate to give all sub-components equal weight. Consequently, the following weighting has been adopted:

Table: Weighting Of Indicators	
Component	**Weighting, %**
Rewards	70, of which
- Industry rewards	65
- Country rewards	35
Risks	30, of which
- Industry risks	40
- Country risks	60

Source: BMI