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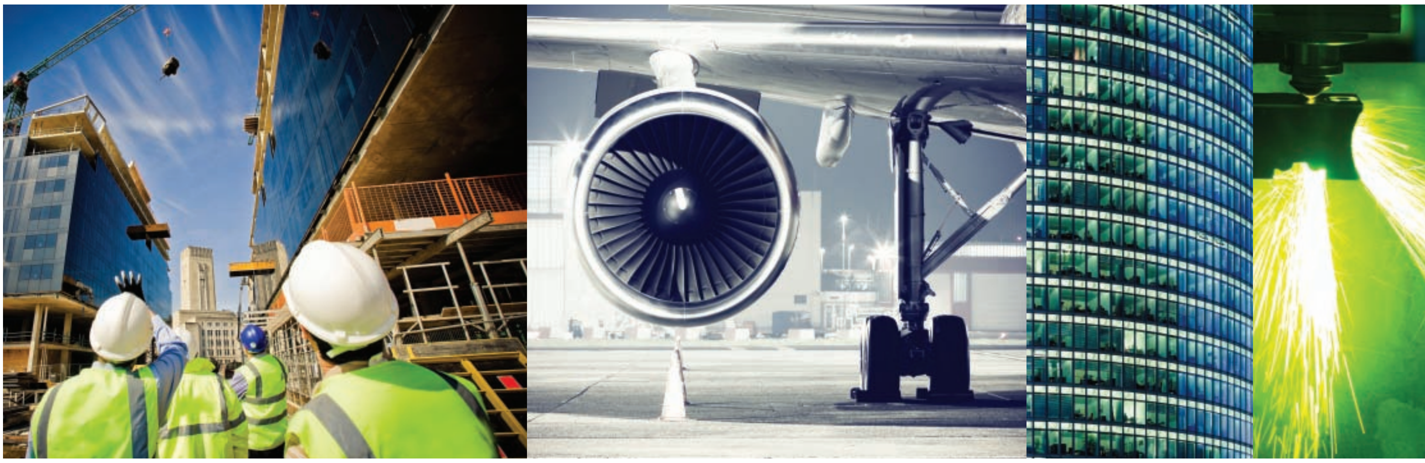
Deloitte GCC Powers of Construction 2015

Construction – The economic barometer for the region

In the Middle East since 1926

Contents



Foreword
Powers of Construction 2015

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Middle East

2015 stands to be another key stepping stone year as the Gulf Cooperation Council (GCC) continues to grow, with the ever-increasing launch of major projects. From road to rail, hotels to hospitality, engineering to Expos, most sectors and service providers are under increasing strain to meet demand. Liquidity, absent from the market just three years ago, is flowing again with bankers and investors keen to be involved in the resurgence of ambition and opportunity.

Accordingly, the increasing scene of tower cranes gracing the skyline of the region's major cities bears testament to this. Equally, traffic, whether on the ground, the sea or in the air, is increasing strongly year-on-year with the region's major carriers showing growing passengers, freight and revenues driving inward investment in infrastructure and capital projects to further exploit the region's central geographical position between the world's major economies – East to West, North to South.

With growing regional economic activity in many sectors, we are now very well positioned to maximize the opportunities as GCC countries continue to build their needed infrastructure and built environments to support economic and social growth. Six years on from the World Financial Crisis (WFC), the marked difference in 2015 is the growing divergence of those countries that are turning their backs on the traditional hydrocarbon-based fiscal policies of the last 40 years to more diversified economies. This developing challenge and change is seeing some governments diversifying into wider trade, tourism and commerce models, which will provide new opportunities for residents and expatriates alike.

The unprecedented investment across the region in transportation, infrastructure and social infrastructure over the last 10 years looks to continue unabated, increasing trade and travel driving inbound and outbound investment across the region. These are all opportunities for an increasingly brighter future for us all.

Of course nothing is ever without risk or counterbalance, but, unlike the perfect storm of the last regional boom (high oil prices and rampant demand), Newton's theory of relativity is an interesting context on which we should pause and reflect:

"Every action has an equal and opposite reaction."
(Newton's third law)

This is a familiar phase imprinted on us in our formative years. At the time of writing, this 'opposite reaction' to the optimism trend across the region is the continuing low price of oil (currently US$50 a barrel). This is the grey cloud threating to put the brakes on the growth mentioned above, and on governments and private sector spending as revenues continue to be squeezed.

What seems clear is that the necessity to move away from oil-based economies has never been greater and that in the race to diversify, there will be winners and runners-up. Quite how this will play out is too early to say, but the gap is likely to grow, providing a regional hotspot of investment and development – hence the aptness of our title for this year's edition, 'Construction – The economic barometer for the region.'

This year's edition of our annual Powers of Construction focuses on areas and topics facing the region where demand for construction and its allied services is currently at its greatest. Using our experience gained through working with the region's leading organizations, who are delivering this agenda, this year's articles and interviews from some of the region's most prominent leaders give insight and ideas on how these current challenges are being met and what will be the enduring impact of the maturing GCC market over the coming years.

We hope you enjoy this year's edition, and thank all our contributors responsible for their views, thoughts and predictions as to how we will realize the unrivaled ambition that so sets the region apart from anywhere else in the world.

This year's edition of our annual Powers of Construction focuses on areas and topics facing the region where demand for construction and its allied services is currently at its greatest.

Analysis of projects planned and underway in the GCC

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The construction sector is an economic barometer for the GCC, many will agree. So what does this tell us about the economic backdrop? Per MEED Projects, the forecast for projects planned and underway in the GCC in 2015 is US$172 billion, the highest on record to date.

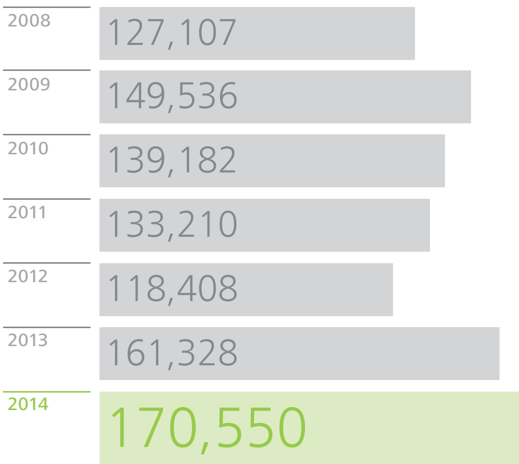
This is all against a backdrop of lower oil prices, continuing political unrest and reduced International Monetary Fund (IMF) growth forecasts across the GCC. It is also impacted by the deepening recession in Russia and, as reflected in the IMF World Economic Outlook update in February 2015, the projection for global growth in 2015 has been lowered to 3.5%, only a small increase from 2014. Per the IMF, the GCC export oil earnings are expected to decline by US$300 billion from the original estimate in October 2014.

However, as we know, the GCC countries have the benefit of reserves, which they have built up as a buffer and which they can continue to spend to achieve their outlined strategies; this has also been acknowledged by the IMF. Therefore, they are expected to continue to spend on infrastructure and capital projects in order to achieve their strategies for diversification of their economies as continually emphasized by the IMF as a critical requirement. Diversification plans include industrial bases, transport, tourism, manufacturing, logistics, finance and Information and Communications Technology (ICT).

Key drivers for diversification include job creation given that 50% of the GCC population is under the age of 25. In the Kingdom of Saudi Arabia (KSA) alone it is forecast that four million jobs will be needed in the next five years. GCC population growth is forecast to grow from 35.0 million to 60.2 million by 2050, all driving the GCC countries' strategies to provide education, healthcare, infrastructure and support to communities. And of course all this growth will require energy and water: a 34% increase in electricity generation capacity and a further 2.2 billion liters desalination capacity is required by 2020.

So when you stand back and understand the social and political drivers on top of key events in the region – Qatar World Cup and Dubai Expo - it becomes clear to see where the project growth is coming from.

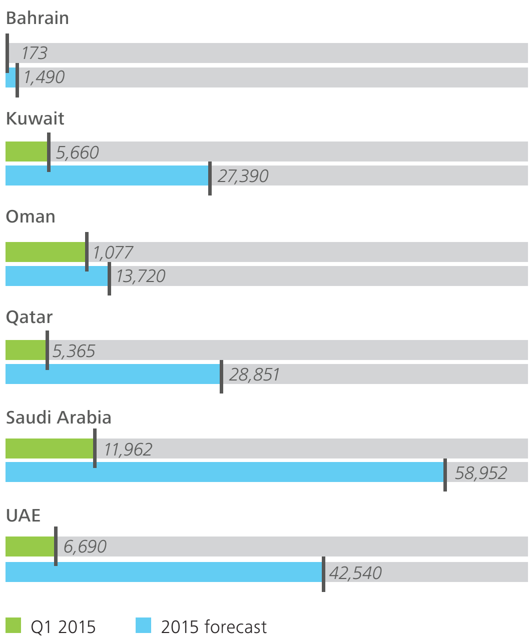
Total contract awards in the GCC, 2008-14 (US$M)



Source: MEED Projects

This graph shows the history of contract awards across the GCC since 2008, as tracked by MEED Projects. The graph below reflects MEED Projects' evaluation of the projects which had indicated that they were anticipating awarding the contracts in 2015, and this amounts to a total of US$504 billion. When these projects are further analyzed, given the status of the pre-execution phase and contractor capacity as well as other factors, MEED Projects has tempered this and anticipates that US$172 billion of this US$504 billion could be awarded in 2015. This does not take into account any anticipated tenders which may emerge in the third and fourth quarters of the year.

MEED Projects forecast of project awards 2015



Source: MEED Projects

So which projects are driving these much anticipated awards? We have analyzed the largest projects in each of the GCC countries, based on data collected by MEED Projects.

Bahrain

The largest expected 2015 award for Bahrain is the Bahrain International Airport upgrade, which amounts to US$4.6 billion in total. This will be the largest project Bahrain has seen for years and is expected to be awarded in packages/phases with the first wave of these anticipated to be in 2015. This is planned to be a 170,000 square meter terminal building, together with associated buildings and infrastructure for car parks and aircraft parking areas.

Kuwait

Three of the largest project awards for Kuwait which are expected this year are all related to Kuwait National Petroleum Company (KNPC) - New Refinery Project: Package 1 (process plant) US$3.55 billion, New Refinery Project: Package 2 (process plant) US$3 billion, and New Refinery Project: Package 3 (utilities and offsites) US$3 billion. KNPC, which currently operates three refineries, has planned to set up a fourth one with the strategic goal of supplying local power plants with low sulfur fuel (less than 1% compared to current 4%), therefore aiming to enhance Kuwait's petroleum products on the world markets, and significantly reduce pollutant emissions. The largest expected award is for KGOC/Chevron - Wafra Joint Operations Heavy Oil Project: Phase 1, for US$5 billion, to boost output of heavy oil by more than 80,000 barrels per day (bpd). Based on MEED Projects data, there are significant projects in the pre-execution phase which employers hope to award in 2015, with US$23 billion purely for the oil and gas sector.

Sum of net project value planned and underway for the GCC (US$M)

KSA

1,203,571(US$M)

Chemical	64,916
Construction	475,218
Gas	25,402
Industrial	28,717
Oil	23,409
Power	332,305
Transport	217,569
Water	36,035

Kuwait

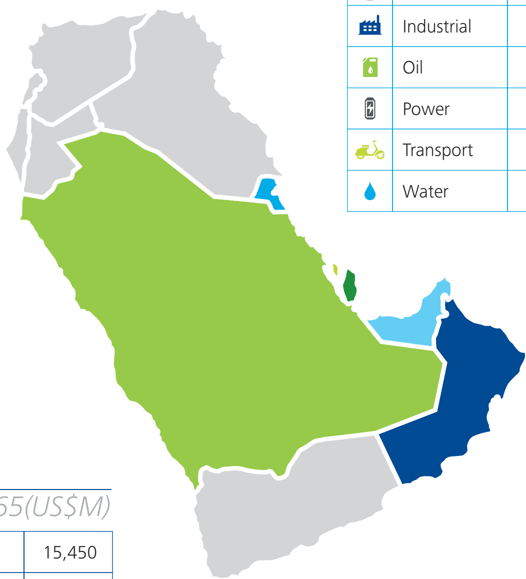
232,558(US$M)

Chemical	565
Construction	80,080
Gas	11,848
Industrial	250
Oil	55,188
Power	29,019
Transport	46,876
Water	8,732

Bahrain

65,882(US$M)

Chemical	5,000
Construction	30,967
Gas	1,258
Industrial	4,656
Oil	5,025
Power	6,148
Transport	11,050
Water	1,778



Oman

163,565(US$M)

Chemical	15,450
Construction	43,160
Gas	25,712
Industrial	12,179
Oil	14,659
Power	9,039
Transport	36,506
Water	6,860

UAE

786,114(US$M)

Chemical	24,809
Construction	539,793
Gas	21,083
Industrial	8,996
Oil	50,899
Power	35,055
Transport	99,226
Water	6,253

Qatar

299,711(US$M)

Chemical	1,484
Construction	139,843
Gas	12,889
Industrial	970
Oil	16,559
Power	8,785
Transport	103,083
Water	16,098

Source: MEED Projects

Oman

The largest project in pre-execution phase is Oman Rail - Oman National Railway, with a total length of 2,135 kilometers (km), which is budgeted at US$15.6 billion and is the single largest project currently planned in Oman. It will be executed in nine segments and completed by 2022. Joint ventures of leading international construction and engineering companies are bidding for this railway project's first segment, which is a design and build contract that is expected to be awarded by the second half of this year. The next two largest projects employers hope to award in 2015 are ORPC – Liwa Steam Cracker & Polyethylene Project for US$1.7 billion, which will enhance both fuel and plastics production, and SEZAD - Liquid Terminal Project for US$1.3 billion, designed to handle the increase in liquid volumes associated with a large-scale refinery and petrochemicals hub envisioned at the Special Economic Zone (SEZ). When looking at projects in the pre-execution phase which employers hope to award in 2015, the oil, gas and chemical sectors stand out as the largest once again, amounting to US$11.6 billion.

Qatar

In Qatar, the two largest projects in pre-execution phase and expected to be awarded in 2015 are from QRail, namely the QIRP: Passenger & Freight Rail, budgeted at US$15 billion, and from QIRP, whose Passenger & Freight Rail: Phase 2 is budgeted at US$3 billion. A total of 400km of mainline rail connecting Qatar to neighboring countries and 260 km of metro and light rail are planned; most of this is to be completed before the World Cup begins. This is followed by two projects, one for the new Qatar Economic Zone budgeted at US$3 billion, which is one of the three new planned economic zones mainly focusing on logistics and air freight companies (expected to be the biggest of the three), and Occidental Petroleum Corporation (Oxy) - Idd e Shargi North Dome Expansion Phase 5, again budgeted for US$3 billion. So in Qatar a clear focus on infrastructure continues as expected.

The dwarfing infrastructure project of the region is of course DWC: Al Maktoum International Airport expansion, currently budgeted at US$32 billion.

KSA

The largest project in pre-execution phase in KSA is Al Mozaini - Riyadh East Sub Center, for US$15 billion. Riyadh East Sub Center is a mixed use commercial, retail and residential high-density development to be situated within the eastern sub-center of the Saudi Arabian capital, Riyadh. It is spread over a 200 hectare site and has been designed with a total built-up area of 7.2 million m^2 with a maximum building height of 300m. When fully realized, it will cater to the needs of approximately 600,000 people within a 20km radius. The second largest project in pre-execution phase is Khozam Development in Jeddah for US$13.3 billion. This mixed-use development located in the south east of the center of Jeddah is expected to develop the area economically, culturally and socially. It will be built in four phases executed in parallel, with a site area of 4 million square meters and a planned built-up area of 15,000,000m^2, and will include residential units, commercial districts, hospitals, leisure and related facilities. These are obviously massive mixed-use developments which will take several years to be executed. When and how these projects will be awarded is yet to be determined by the developers.

In the city of Mecca, the project Mecca Metro: Lines B and C for US$8 billion is to be awarded to help transport pilgrims around the Holy City. With the first line in operation, Mecca Municipality is planning to develop a network of four further lines, which will run both over and underground for a total distance of 113km. This is followed by the Military Medical City in Riyadh budgeted at US$7.2 billion. This is planned to provide highly specialized care to military personnel, their families and national leaders. The medical complex will be located at the premises of King Khalid International Airport.

Obviously there are several other sectors with several billions being planned on capital projects, with the top sectors for 2015 represented by healthcare projects amounting to US$19 billion, infrastructure projects (roads and bridges) at US$35 billion, and power plants at US$13 billion. This is all much needed capital spend in KSA.

UAE

The dwarfing infrastructure project of the region is of course DWC: Al Maktoum International Airport expansion, currently budgeted at US$32 billion. The development, anticipated to be the biggest airport in the world, accommodating more than 200 million passengers a year, is being built in two phases, with phase 1 calling for two main terminals and three runways. The entire development will cover an area of $56km^2$.

> In the city of Mecca, the project Mecca Metro: Lines B and C for US$8 billion is to be awarded to help transport pilgrims around the Holy City.

This is followed by a massive industrial project in Abu Dhabi for Tacaamol - Al-Gharbia Chemicals Industrial City, planned at US$20 billion. Being led by Abu Dhabi Investment Council (ADIC), the project comprises 12 plants that will be located in the new Mina Khalifa Industrial Zone. The first phase of the project is expected to have an output of more than eight million tons per year. The chemical industrial city will help diversify the predominantly oil-based economy by setting up complementary industries and associated services.

The UAE projects would not be complete if there were no plans for large scale, mixed-use developments, such as Dubai Holding/Emaar Properties- MBR City: Dubai Creek Harbour planned at US$17.7 billion. Located at the head of the Dubai Creek, the development of the Ras Al Khor area into a business hub is being planned. Covering an area of 3450 hectares, the project will comprise a mixed-use development, an entrepreneurial zone, residences, educational facilities, cultural amenities and leisure, while the centerpiece will be The Dubai Twin towers, which will be the tallest twin towers in the world. There are several other sectors with several billions being planned on capital projects, with the top sector for 2015 being mixed-use and residential projects amounting to US$24 billion.

In summary

In summary, some mammoth projects are on the horizon once again. Out of the total US$2.8 trillion projects which are in execution and pre execution phases, 40% of this value relates to residential, leisure and hospitality buildings and mixed-use developments, totaling an anticipated budget value of US$1.1 trillion. These projects are the most sensitive in terms of balancing supply and demand in each of the GCC countries, with timing of delivery balanced alongside a sensible return on investment likely impacting the awards of these projects specifically.

So we expect to see the GCC countries managing economic growth and planned capital projects to create diversified economies with effective debt and capital funding in the coming years. Here is to a new and diversified tomorrow!

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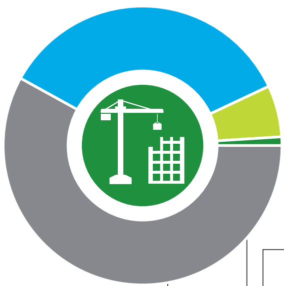
Net sum of pre-execution and execution project values (US$M)

Design	228,840
Execution	618,369
FEED	30,643
Main contract bid	243,205
Main contract PQ	62,290
Study	1,568,054

2,751,401(US$M)

Sum of pre-execution and execution project values

Net sum of execution project value (US$M)



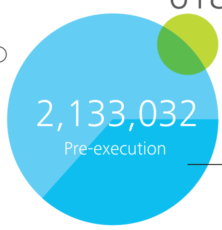
Material	358,654
Labour	216,429
Equipment	37,102
Energy	6,184

30,918 Steel

30,918 Cement

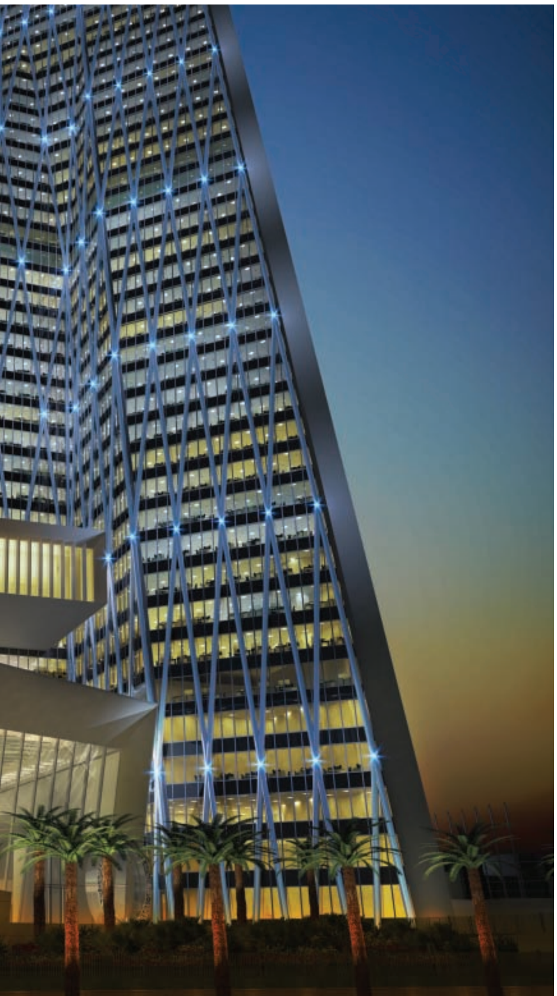
185,511 Interiors

618,369 Execution



781,000 of pre-execution represents remaining packages to be awarded on projects already underway

Source: MEED Projects, IMF, UN-DESA, WPP ZOIO and IEA - World Population Bureau



China State Construction Our Middle East journey

China State Construction Engineering Corporation Middle East (CSCEC ME) is the regional operation of the world's largest construction company and top home builder, the CSCEC groups (the Company). Since its first iconic housing project on the Palm Jumeirah over 10 years ago, CSCEC ME has firmly established itself as a major international contractor offering multidisciplinary engineering and construction services, including building, infrastructure, and mechanical, electrical and plumbing (MEP) work, from its base in the UAE. Despite the economic crisis which stalled the industry for quite some time, CSCEC ME has up to this day secured mandates totaling over AED16 billion in project value.

We spoke to the president and CEO of CSCEC ME, Mr. Yu Tao, about his journey leading the firm's regional expansion since the very first assignment, and the opportunities and challenges that he considered significant for CSCEC ME and other market participants. When asked about his outlook for the forthcoming years for the construction industry, Mr. Yu is optimistic about the market prospect in the region, and expects bigger projects in the coming years. He has strong confidence in the growth potential in the UAE and broader GCC market; in particular, he stressed on what he observed as the defining vibe of Dubai, which in essence says "Everything is possible." This is what initially attracted him to Dubai, with the Palm Jumeirah Villa Project.

He reflected on his own experience coming to Dubai 10 years ago, having previously managed CSCEC's businesses in Singapore. Singapore at that time, according to Mr. Yu, was comparatively more mature and systematic a market to operate in; whereas Dubai showed more promise and growth potential, with many mega projects in the pipeline, such as the Palm Jumeirah, JBR/JLT Phase 1. The sentiment at the time was very welcoming; for example, the chairman of the Roads and Transport Authority (RTA) emphasized the importance of infrastructure in Dubai and UAE, and expressed his wishes to see more involvement of Chinese contractors to help constructing their infrastructure faster.

CSCEC started with a market study in both infrastructure and building markets. Then the successful completion of Palm Jumeirah Villa Project cemented their reputation in the local market. Many of their new projects cover a variety of developments, including airports, roads, utilities, and local housing development.

There were specific demands from the local industry that CSCEC ME needed to meet, hence, it was important to be creative in how they could leverage their global resources and experience in a different market.

We asked Mr. Yu what are the main challenges that he encountered in this environment. He said the main challenge was to selectively take CSCEC's best global practices, and turn them into success in the local market. There were specific demands from the local industry that CSCEC ME needed to meet, hence, it was important to be creative in how they could leverage their global resources and experience in a different market. CSCEC is now the world's largest contractor, with operations in over 40 countries and 30,000 staff worldwide supported by 3 million workforce in its overseas operations. Such extensive and experienced workforce provides the company with solid capability to deliver projects to clients with quality and efficiency. However, there are always practical challenges when it comes to taking any of their best practices abroad: first of all, there are differences in building processes, as China has Chinese standards and building codes, whereas in the UAE, they tend to use US and UK building practices and codes, and they needed to invest time in understanding the differences and how to train their workforce in addressing these differences.

The above adds to the challenges for consultants and clients themselves, who had never experienced the extent and complexity of some of the projects that have since been built and will continue to be built.

All of these together, required them to be much more involved in providing solutions to achieve the design objectives as well as the timescales in the Middle East compared to elsewhere in the world.

Therefore there are most certainly more extensive demands for the contractors to align all stakeholders throughout the construction process. Secondly, local decision makers also require time to familiarize themselves with Chinese contractors. There were numerous cases where CSCEC ME had to convince local clients by referencing to CSCEC's project success in over 100 countries, as well as its 35 years of overseas experience with solid credentials.

Local credentials also proved to be very important, hence, choosing the right project to start with is of critical value to any new comer to the market. CSCEC ME started its Middle East market entry via the ideal anchor opportunity, the Palm Jumeirah Villa Project, which really put CSCEC ME on the map and helped the Company establish a home (regional hub) away from home (the head office).

We asked Mr. Yu about the cultural challenges the staff may have faced in working in a new country with new building codes and extreme climatic conditions and timescales. Mr. Yu considered the strong sense of commitment as the most important quality that is close to the heart of their Company and their people. He said: "It is our belief that commitment makes miracles happen." He agreed that the construction industry is full of challenges, which quite often makes giving up a seemingly easier option to choose; however, they are committed to ensuring delivery of projects, regardless of the issues they may face.

Taking account of these challenges and having overcome them and adapted to the way of work in the GCC, Mr. Yu confirmed that CSCEC ME has a long term strategy to continue working in the Middle East. When asked about the current market and opportunities, Mr. Yu noted that the building sector seems to have been recovering faster than the infrastructure sector. He said that there are visible signs that the building market is really coming back, with more tender inquiries, specifically for hotel projects, in accordance with the governments' plan to attract more transit visitors.

The infrastructure market is taking longer to recover. The water canal project, being one of the larger infrastructure projects currently underway, is not enough to keep contractors busy.

The infrastructure market is taking longer to recover. The water canal project, being one of the larger infrastructure projects currently underway, is not enough to keep contractors busy.

There is an increasing population and this is putting more demand on infrastructure, which the RTA has been very effective in addressing despite cash flow challenges. CSCEC ME built the fly-over bridge near Dubai Investment Park, which was delayed due to the funding shortage resulting from the previous economic crisis a couple of years ago. The funding was eventually put in place and the project was completed. He said: "We expect funding to be the ongoing challenge when looking at the extent of infrastructure projects planned and underway; that is why we have developed a unique proposition for our clients, which is to offer project funding or export credit opportunities."

With expected increasing demand in the building sector, CSCEC ME is well positioned with its professional team which has increased by 100% and its workforce which has increased by 200% to cope with demands and fulfill the market needs.

He said they expect that managing costs effectively throughout the work process will remain a priority, as the tender process is still very competitive and this has an impact on the tender margins which are under pressure before work is even awarded.

Mr. Yu expects ongoing challenges regarding design variations and managing variations to remain a feature of the construction industry, particularly because of the complexity of projects as well as the timescales in which designs are done and executed.

Material cost is the one that has a significant impact on their bottom line. Costs went up with projects particularly around 2006-2008. Material cost went up from AED2700 to AED5000/6000 per ton for steel. Many contractors had to secure additional funds to get projects completed. However, we now have the economic slow-down in China and therefore the price for production materials is under less upward pressure; even with the current price increase alongside the recovering economy, they are still within the reasonable range. Taking into consideration the inflationary increases, CSCEC ME always ensures to lock in the price of materials as soon as the contracts are awarded, and that way protect their margin from price fluctuations.

Mr. Yu also expects ongoing challenges regarding design variations and managing variations to remain a feature of the construction industry, particularly because of the complexity of projects as well as the timescales in which designs are done and executed.

He said that they take this fact as an inevitable part of their business, and they have strong processes and controls in place to track and manage change orders to ensure that they recover all this additional value for additional work done. He said that CSCEC ME is committed to work closely with consultants and clients to ensure they all work as a team to address any problems they encounter, which enables them to move on as quickly as possible with the construction. They also use their design experience from Design & Build to EPC contracts to ensure that they provide relevant input into a project to guard against any other design aspects.

One other important factor Mr. Yu brought up was the changing approach of the clients. He considers the clients of today to be more cost conscious, they are now more focused on the projects' feasibility and whole life cost of the asset which impacts their development budgets. There is a lot of pressure from clients and consultants to manage the budget efficiently.

In order to ensure they have good controls in place to monitor the project budgets and avoid surprises, CSCEC ME has its own internal control system to ensure costs are captured in detail and itemized by task. Their project management teams are tasked to enforce detailed tracking against budgets which together with early warning systems they have in place, helps them efficiently track, manage and mitigate costs where appropriate. They also leverage their China/Singapore system which reconciles expenditure with the details per the finance department, and compares budgets and actuals on a monthly basis. It is a very sophisticated system to help manage the whole record-keeping effort, the software-enabled tracking between finance and the project team to ensure completeness of costs per project.

Variation orders are also tracked in the system and linked to tracking shop drawing changes as well, to ensure all additional work on a project is captured to protect the company's interest, which is critical when administering the contract to comply with timely requests for additional change orders whenever appropriate and to avoid scope creep.

And of course with change on any project, comes delay as well. When commenting on the unavoidable delays in construction, Mr. Yu emphasized that it is crucial to keep a balance between ideal requirements and reality when working with clients/consultants.

CSCEC ME adopts a can-do approach, and always tries to work together with different stakeholders on the project, finding ways to ensure successful completion.

Mr. Yu said that CSCEC ME always reiterate their good intention to work as part of the team. They keep their focus on building trust with the client and this translates into confidence of delivery of the project. Should there be an issue, the Company would do everything in its capacity to help mitigate any delays via any other means possible. In the cases where there is a complete change in specification, which has happened on one project where there was a change from UK to US specifications; CSCEC ME then decided to get external help from consultants who are specialized in these areas to come to train and coach both parties, and therefore got all stakeholders on the same table to understand what the impact of the change means for the project.

The bottom line is to stay reasonable, and remember that in a successful collaboration, there is always give and take involved.

Dealing with these industry challenges is not all the company and its leadership are focused on however. Thinking about new and innovative ways to approach the market to remain competitive is also key. There has therefore been a noted change in their business model, by adding a financial factor to the equation. CSCEC ME is increasingly bringing in a project finance offering to differentiate their bid and increase their opportunity to win the project. Offering buyers credit, project finance or coming in as investors in the project are all mechanisms that CSCEC ME are open to offer on the projects they choose to bid for.

On an operational level, Mr. Yu is keen on making CSCEC ME more systematic, through the use of BIM, Primavera, and better planning, to ensure there is better project coordination from the outset and hence better management focus on reducing the lead time on projects, and a clearer understanding of the critical path.

Besides internal systems, the industry is moving more and more to the use of BIM modelling with the aim to improve efficiency. There is also a number of new technologies which enable the contractor to see the project in 5D. These are all costly at present, but in the long run they will be very beneficial not only for efficient project scheduling but also to capture all data for the asset being built. This data, if captured accurately, can be passed back to the owners so they have a full set of information which links to suppliers, operator’s manuals, maintenance information, warranties, etc.

Of course, part of being more systematic involves an interdependence with their subcontractors who are a critical part of their supply chain. CSCEC ME maintains high standards, international sub-contractor relationships, with a strong focus on capability, efficiency and being economical in its businesses. When it comes to procurement, CSCEC ME adopts an open and transparent approach in choosing between local and international, including Chinese material suppliers.

Offering buyers credit, project finance or coming in as investors in the project, are all mechanisms that CSCEC ME are open to offer on the projects they choose to bid for.

As a lead contractor on most projects, CSCEC ME ensures they have a full understanding of the whole supply chain, managing all resources efficiently to make sure costs are well managed.

Leaving us with his last thoughts on the industry and where Mr. Yu would like to see some changes, we discussed the current competitive bidding process all contractors are facing.

Previously, with government sector tenders, as long as one had a qualified tender, the tendency was that the lowest price wins. However, over the last few years, the practice has somewhat changed. Today's process appears to be more of an open forum negotiation; clients are increasingly using this practice to push the tender price down, indirectly leading to contractors building this factor into their first tender price, which is really complicating the tendering process.

This open forum negotiation is now a common practice with public sector tenders, which results in contractors continuously lowering each other's price, which creates an unhealthy bidding environment.

He felt the procurement process should go back to a strong first bid so contractors are focused on quality and efficiency, and as a result benefit the industry as well as all market participants involved. At present, the contractors are under pressure to build at low costs, which is not good for a sustainable environment and assets.

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In this regard, RTA has been leading by example. It is perceived as highly efficient and effective, adopts a very transparent approach around procurement, moves fast in the process, and consequently, their projects tend to generate better results in the long run, for all stakeholders including end-users.

Mr. Yu also noted that profit margins across the industry are very low; even globally, the margin is at 2%. This has made the sector highly risky – contractors have been struggling to meet a 2% margin, while carrying the burden of funding a 10% retention. Many of the outstanding payments are a result of unpaid retentions which are well overdue, and result in significant losses if they remain uncollected. He felt that the industry has to find a way to create an environment conducive to the healthy development of the market that takes contractors' concerns into consideration.

The initial rationale of the 10% retention is to ensure the quality of projects delivered; however, in practice, it often leads to contractors being unpaid, causing serious stress on the cash flow of their businesses. So contractors have been focused on all these outstanding amounts, despite the fact that projects have been delivered several years ago.

This has become a huge risk for contractors participating in any projects, and the industry needs to find a way to balance the interests of all parties involved.

Mr. Yu suggested that it would be highly productive to have in place a mechanism that could facilitate collaborative and constructive behavior, something in the form of an escrow account subject to valid and independent third party assessment to release retention bonds on time and in line with the contracts.

This way, clients are protected, and contractors do not need to build additional risks in the contract pricing and can focus instead on their core business – to build.

With this in mind, CSCEC ME's vision and strategy for the next two to three years is to focus on three bigs: big market, big proprietor and big project.

Mr. Yu expects the Company to dedicate more time to major partners, and work with them to truly create projects together. For these partners, CSCEC ME can provide funding as well as deliver technical expertise in the built environment. Bids are costly for all involved, so it is of crucial importance to Mr. Yu that CSCEC ME deals with its clients sincerely and fairly.

The projects of highest interests to CSCEC ME are those in the multi-billion range, which will be playing to the strength of CSCEC ME. The Company is actively looking into both the building and infrastructure sectors. Projects of interest include airports, railway and highway networks.

Speaking on the Company's strategy in the local market and potential joint venture opportunities, Mr. Yu reiterated that CSCEC ME is open to partnership opportunities with both international and local contractors alike. For the mega projects that CSCEC ME is targeting, they would consider forming consortiums where needed, to accelerate the execution of the projects; simply because of the sheer scale of the targeted projects, they would stand a better chance of delivering and managing the execution risk together. The partners that Mr. Yu values are those who share similar vision, appreciate the collaborative approach, and are willing to pledge the same commitment as CSCEC ME.

His final word was, given that the industry profit margins on projects are as low as 1%, he felt more mature clients would be better served by considering that contractors need to make a profit at the end of the day, rather than squeezing the contractor so much that they find it difficult to execute the project. They should implement a pricing strategy whereby they reward quality through innovative models of engagement: as an example, offer X% as a performance reward, should set targets be met. This ensures all participants' efforts are fully acknowledged and taken into consideration, and as a result, makes sure that quality, above all, stays the focal point of the project.

CSCEC ME's vision and strategy for the next two to three years is to focus on three bigs: big market, big proprietor and big project.

In summary, CSCEC ME sees great potential around support related to Dubai Expo 2020, and other regional infrastructure needs. Out of the GCC countries, the UAE remains the key market focus, with Kuwait increasingly becoming a focus for CSCEC ME, given the mega projects they are planning. Oman is another market that CSCEC ME currently tenders in, and last but not least, CSCEC ME has just started to enter the Saudi market. So overall, CSCEC ME is clearly committed to continue to operate and participate in the GCC construction market in the long term.

Mr. Yu Tao
President and CEO
of CSCEC ME

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Challenges and developments in the Qatar construction market

We spoke to Ahmad Jassim Al Jolo who is the chairman of the board of The Qatar Society of Engineers (QSE). He shared his views, strategy, and vision regarding the organization. He also shared his thoughts on the Qatar construction market.

QSE

QSE is a non-profit professional organization. It was established and registered on 27/01/2007 at the Ministry of Social Affairs, Doha - Qatar, under Law no. 12 of the year 2004. Before registration, it was known as 'the Forum of Qatari Engineers.' QSE is managed by a board that consists of 11 members, including the chairman. The organization has approximately 200 Qataris as members out of approximately 5,000 engineers. At present, only a small number of places are available for non-Qatari nationals but this membership route is not yet available as a route to entry. In terms of current legislation, QSE membership is not yet obligatory for Qataris, but rather voluntary.

QSE either has Memoranda of Understanding and/or collaborates with other construction and regulation bodies such as the Royal institute of Chartered Surveyors, Chartered Institute of Builders, and Gulf Engineering Council.

QSE has several chapters and board members coming from sectors such as civil engineering.

QSE has a mission to advance and promote the engineering profession in Qatar through collaboration with local universities and helping them review and improve engineering degree courses, and other relevant university curriculum.

QSE would like to enjoy more active participation in Qatar's construction industry. QSE is also lobbying government to become the regulator of the engineering profession in Qatar. Unfortunately to date, there appears to be very little progress. This has resulted from observing the many challenges and issues affecting engineers and the engineering profession in Qatar, whilst the government is too inundated with work.

QSE has a mission to advance and promote the engineering profession in Qatar through collaboration with local universities and helping them review and improve engineering degree courses, and other relevant university curriculum. The society has also been conducting social awareness activities with the local communities including promoting the engineering profession in high schools.

There has been a number of construction, infrastructure and real estate seminars, conferences, and training courses in which QSE has either sponsored, chaired, or been present to lend its support. Of prominence are The Gulf Engineering Forum, and Cityscape.

QSE currently faces financial challenges as it is not financed by the government and has a low membership base. Some of its funding is obtained from organizing training courses and sponsorship from contracting companies.

Qatar's construction market

Mr. Ahmad stated that he believed the greatest challenge to Qatar's massive infrastructure program was coordination amongst the various stakeholders despite the efforts of the Central Planning Office (CPO). The CPO which is part of the Ministry of Municipality and Urban Planning (MMUP) was given the mammoth task of coordinating Qatar's infrastructure program for all road, rail, metro and other infrastructure projects. One of the toughest challenges has been identifying and relocating existing underground services to enable construction work to proceed. This challenge has arisen because some of the records for works completed many decades ago are no longer available, and/or the available records do not appear to be accurate. Mr. Ahmad emphasized that teamwork amongst all the country's stakeholders was imperative, and that the involvement of the public would be to the success of these mega projects.

Asked whether or not the falling oil price would affect Qatar's 2030 National Vision (QNV2030) strategy, Mr. Ahmad stated that in his opinion, the massive infrastructure programs would mostly stay immune to any financing shortages especially since Qatar was least affected amongst the GCC states. However, there was a small chance that the private sector in Qatar might be exposed to some of the risk brought about by the falling oil prices as some planned oil and gas developments have either been postponed or cancelled. This risk is believed to be minimal.

In line with the government's strategy of increasing private participation in the economy, other forms of infrastructure financing/procurement could be introduced, such as the Public-Private-Partnership (PPP). However, the key to this success is transparency, robust regulation, and awareness campaigns with members of the public and all other project stakeholders.

There is a perception that the Middle East construction market is a difficult market to participate in. However serious technical issues should be considered minimal as all infrastructure and construction programs always face some problems during the project's lifecycle. There has been a concerted effort by some government departments to reduce problems faced by contractors and consultants with some of the standard government forms of contract; these are now being reviewed and revised to improve the contracting environment in the country and ultimately help reduce contractor claims. It is of great concern that a lot of traditionally procured construction projects are being released for tender without a clear and robust technical specification. The result observed in Qatar has been that contractors/consultants now price the risk, which resulted in the very expensive construction pricing in Qatar, as it is currently believed to have the highest construction prices in the GCC.

Introduction of alternative dispute resolution mechanisms in more government contracts would help reduce the current negative effects of construction disputes. Mechanisms such as dispute resolution boards, conciliation, adjudication and the like, will assist in reducing the number of construction disputes that go to arbitration and litigation.

The prompt payments act model from Ireland is a good example of legislation that could help the country's various government departments reduce the period of payment to contractors. During Ireland's construction boom at the turn of the century, this act ensured that contractors were paid within the agreed invoicing timing. This helped contractors stay afloat financially and helped reduce some delays. This also helped contractors to reduce the pricing risk for late or delayed payments.

That said, experienced contractors in Qatar appear to understand how to correctly claim payments from government, and thereby experience less delays with their periodic/milestone payments than those who submit incorrect documentation to support their interim payment applications.

As Qatar progresses with QNV2030, the country will witness greater diversification of its economy as construction, infrastructure and oil and gas industries reduce their contribution to the GDP, whilst other sectors in the Qatari economy such as tourism, sport hubs, health industry etc., all grow the economy into a more knowledge based economy. The presence of foreign universities in Qatar was part of the government strategy to transform the country into a knowledge based economy hence the construction of Education City universities and their individual specializations. With time, the economy is expected to increase its services oriented products.

It is of great concern that a lot of traditionally procured construction projects are being released for tender without a clear and robust technical specification.

Project challenges will always exist. However, problems such as high Qatari construction prices need to be resolved, mostly by reducing the risk faced by contractors and increasing the use of ‘pain/gain’ sharing mechanisms.

Mr. Ahmad believes Qatar has been unfairly targeted with regards to the treatment of labor. He acklowedges that there has been a large number of highly publicized violations in the international press, but asks whether any of those countries publishing these stories, can confirm 100% that there have not been any labor violations in their country.

Government has had legislation in place which is being modified to help protect workers more, whilst at the same time stepping up enforcement of such laws. It must be noted that whilst some local contractors have been found to be non-compliant with labor regulations, a number of international contractors have been found flouting local regulations as well.

Whilst the construction industry has been fielding numerous complaints to the Ministry of Interior (MOI) about visa allocations, one must bear in mind that the MOI has very legitimate social and security concerns, hence the visa quotas. This is not to say that flexibility on the part of the MOI could be improved.

There is another big challenge in the local construction market, that of building codes. Qatar does not have a robust set of building codes. The result has been that the consultants employed bring their own standards, and this does not bode well for uniformity and consistency. The Ministry of the Environment (MOE) is working on producing a solid and relevant set of building code in coordination with the Ministry of Municipality and Urban Planning (MMUP). MOE is currently responsible for the Qatar Construction Standard, and their standardization department is also working with the Justice Ministry, but all this is still coordinated with MMUP.

Project challenges will always exist. However, problems such as high Qatari construction prices need to be resolved, mostly by reducing the risk faced by contractors and increasing the use of ‘pain/gain’ sharing mechanisms. The local industry needs to embrace the concept of partnering and stop viewing the contractor as an adversary; it must always be remembered that the contractor is in business to make a reasonable profit.

There has also traditionally been a lot of wastage in the Qatar construction market. Also of concern is the inefficient design of buildings and spaces. This wastage and inefficiency needs to be reduced through education, continual professional development and the introduction of more innovative and efficient methods of building/infrastructure design and construction. Both consultants and clients have a lot of room for improvement.

Government clients require robust in-house teams capable of managing multiple projects and different contactors. These teams must be emotionally intelligent and experienced in order to deal with this multicultural environment.

Ahmad Jassim Al Jolo
Chairman of the Board of QSE

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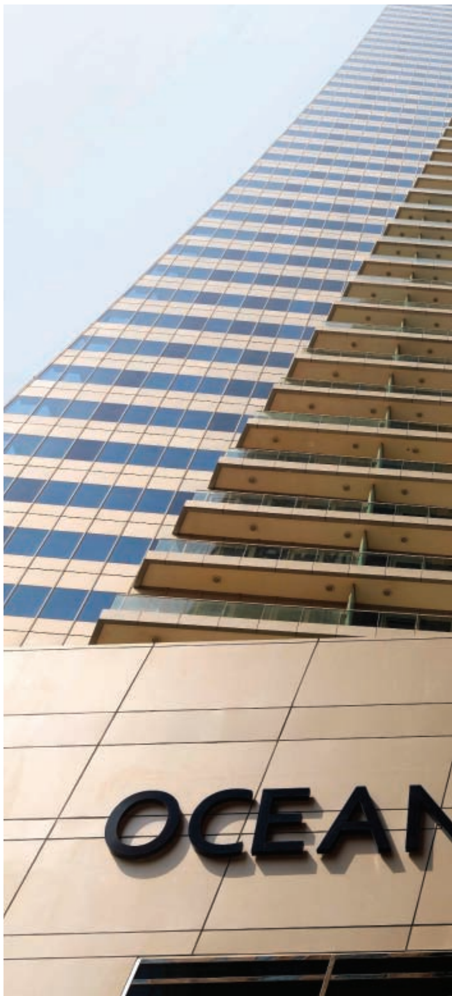
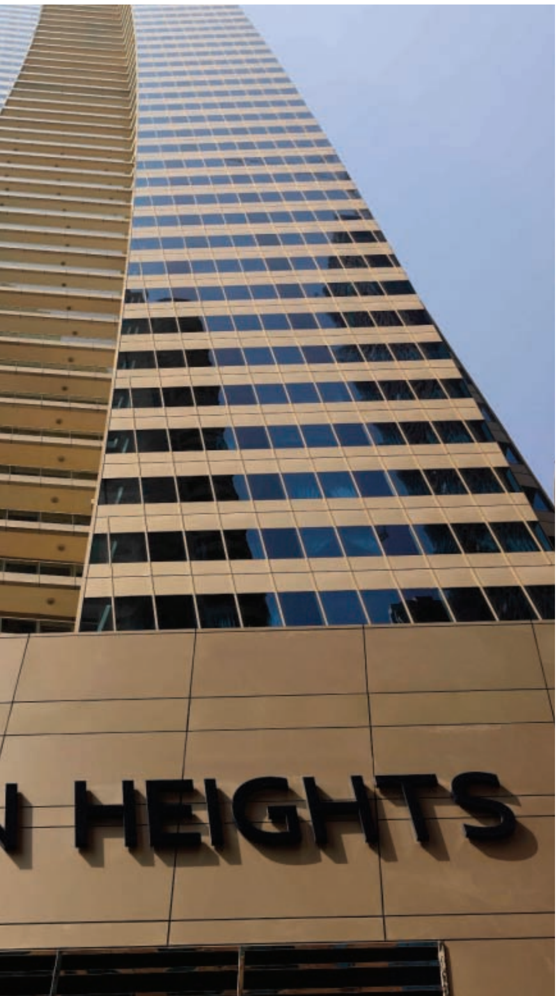
THE DRIVE /AKOYA
AKOYA by DAMAC





DAMAC's view on Dubai's real estate and hospitality markets

1. How would you describe your group and its culture?

DAMAC Properties is a leading luxury real estate developer, based in Dubai and operating across the Middle East. The company develops high-end luxury living experiences in prime locations from private apartments to villa communities, serviced hotel apartments and hotel rooms, to 'limited edition' branded real estate, with partners including Versace, FENDI, Paramount Hotels & Resorts and The Trump Organization. The company's footprint now extends across the Middle East with projects in the UAE, Qatar, KSA, Jordan and Lebanon.

DAMAC Properties is an innovator within the real estate sector having proved time and time again the company's ability to bring the right product to the market at the right time. This is proven with the collaborations with global luxury brands that started in 2010, the establishment of DAMAC Hotels & Resorts in 2011, with five hotels already open and operational, and a further 10,000+ units in development, and most recently the company's move into master planned lifestyle communities in mid 2013.

2. What specific factors do you believe will drive growth over the medium term?

We have recently reported sales for Q1 2015 that reached AED2.8 billion. This was supported by a continued strong interest from overseas markets in the DAMAC luxury living experiences, primarily within the two master developments, AKOYA by DAMAC and AKOYA Oxygen.

In-bound tourism to Dubai continues to grow, with 2014 numbers around 13 million and 2020 numbers predicted to hit 20 million, with an additional five million people coming to experience the World Expo. With so many people coming to experience everything Dubai has to offer, it will set a strong foundation for real estate growth. This tourism growth is supported by a strong international marketing campaign, with Emirates and Etihad Airlines both taking on new routes and bringing Dubai closer to potential visitors all around the world.

In addition, UAE's government continues to invest heavily in infrastructure with 13% of the AED41 billion budget in 2015 allocated to these projects, and there is a commitment in place that this level of spending will continue for at least the next five years.

In-bound tourism to Dubai continues to grow, with 2014 numbers around 13 million and 2020 numbers predicted to hit 20 million, with an additional five million people coming to experience the World Expo.

3. Any clouds on the horizon?

Dubai is in the fortunate position that it benefits from both positive and negative international events. Following the Arab Spring uprisings across the region, many people moved to the safe haven environment of Dubai, investing in real estate.

When the oil price dropped, Dubai saw a slight fall-off in investments from oil producing countries – but places with heavy manufacturing industries, such as India, boomed, with more non-resident Indians (NRIs) looking to invest in Dubai.

When the rouble fell in Russia, we saw more investors from China. Dubai is built on strong foundations, with a transparent and attractive business environment. Tourism is growing, as is population; Dubai International Airport is the busiest in the world with 70 million people passing through in 2014; and World Expo 2020 will be hosted in Dubai in five years' time. There are so many positives driving the growth of Dubai – it is our home city and we believe strongly in its future development as a leading city anywhere in the world.

4. What are some of the challenges that are unique to the Middle East?

There are many challenges when delivering high-end, luxurious living environments, but the two regular challenges are the weather/environment and access to workforce. Obviously temperature can get quite high during the summer months and this reduces the amount of time that contractors can have staff working outside, which can slow down the rate of construction. In addition, as the majority of the workforce is from overseas, there is a challenge to recruit high quality, experienced workers, as the competition to attract them is very high.

DAMAC has been in the market for more than 10 years and has very good relationships with experienced contractors and suppliers, and has built a strong reputation in the market.

One area we would like to see implemented is that of the off-plan property mortgage. It is currently virtually impossible for a serious buyer to obtain credit from the UAE banks to help finance the purchase of their future Dubai homes. We believe a comprehensive, well-regulated and transparent off-plan mortgage will open up the Dubai property market to many investors who are looking to purchase their home, but do not have the initial start-up capital to currently invest.

5. How would you describe the current market status for the industry and what do you think the key challenges are and will continue to be?

The Dubai real estate market is currently going through a welcome phase of stabilization as the market matures. It is worth noting that expatriate buyers have only been able to access freehold contracts to own their own property in Dubai for 13 years. Following the global financial crisis of 2009-10, the Real Estate Regulatory Authority (RERA) has done an outstanding job of bringing in clear rules and regulations, which in turn have gone a long way in making Dubai one of the most transparent and secure markets in the world.

Dubai is outperforming real estate markets around the world, with long-term stable growth patterns. We remain confident that savvy international buyers recognize the intrinsic value of luxury property in the right location at the right price.

A big percentage of recent sales has been made up of 3-4 bedroom villas within the AKOYA Oxygen green master development and units within the serviced hotel apartment projects, such as DAMAC Towers by Paramount.

The regulations put in place 18 months ago are now taking effect, and the Dubai property market is maturing. The lower number of speculators and the increase in end users is seeing the real estate market make a natural progression to its next level. We have seen prices stable over the past six months and expect this to continue in 2015.

Dubai is outperforming real estate markets around the world, with long-term, stable growth patterns. We remain confident that savvy international buyers recognize the intrinsic value of luxury property in the right location at the right price.

6. What is DAMAC's strategy and priority over the next five years? How do you envisage achieving this?

As one of the most influential developers in the region, we are now able to develop larger scale projects, including lifestyle communities and master developments, such as our AKOYA by DAMAC and AKOYA Oxygen projects. While we focus on delivering these to the highest standards, we will also be investing in new strategic land to ensure we have a high quality land bank across the Middle East.

We are also growing rapidly in the hospitality space. At the time of writing, we have five luxury serviced hotel apartments open in Dubai, and over the next couple of years we will be one of the largest operators of hospitality in the region with around 11,000 hotel rooms or hotel apartment units under our DAMAC Hotels & Resorts brand.

7. What are some of the challenges of working in Dubai and how does this compare to the rest of the region?

Dubai is a mix of international cultures, with over 120 nationalities calling Dubai home. It is a vibrant and welcoming city, with open and transparent regulations creating a secure and peaceful place to live in. Language barriers, working with so many different cultures and personalities, can be a challenge, but it is also part of what makes Dubai great.

8. DAMAC Properties has been successfully listed on the Dubai Financial Market (DFM), prior to which it had listed GDRs on the London Stock Exchange (LSE). Based on your experience what would be your top five recommendations for a regional company considering a listing? What are the advantages of listing within the UAE as opposed to an overseas market?
DAMAC Properties was the first UAE real estate developer to list on the LSE. This was a huge step for DAMAC Properties and elevated our brand to a global scale and provided access to global capital markets. The most important thing, however, was that it was the right time for a company of our size and scale to look at going public as we embraced the procedures necessary to list on a market such as London.

After a year on LSE, in which we grew our brand and our valuation, and we increased our product portfolio in Dubai, the natural progression was to list on the DFM as this provided the liquidity in the stock from our local and regional investors.

Language barriers, working with so many different cultures and personalities, can be a challenge, but it is also part of what makes Dubai great.

It was key to provide access to DAMAC for those local GCC-based investors who wanted to be part of the DAMAC story but could not take a stake while we were based in London.

The move also increased the level of transparency and reporting structures which enabled us to showcase more of our success story to the world.

9. What have been the key challenges for DAMAC Properties in transitioning into a master developer?
We have been pleased with the response we have seen to our two master developments, AKOYA by DAMAC and AKOYA Oxygen.

The challenges come with the size and scale of the project, but we have almost 2,000 staff who are real estate experts who have transitioned seamlessly into the development of master developments. As we have a comprehensive in-house team of project managers, designers, architects and quantity surveyors, we are able to face any challenges which come our way, quickly and efficiently within the company, without passing the responsibility over to a third-party.

Adil Taqi
Group Chief
Financial Officer
DAMAC

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Get it right the first time

A view from the president of HBK Group

The HBK group of companies, today known as HBK Group, started with the establishment of HBK Contracting Company W.L.L. by the late Sheikh Hamad Bin Khalid Al-Thani in 1970. The company's main goal was to undertake civil construction projects in Qatar, thus contributing to the economic progress of the country, both in the private and governmental sectors.

The president said that although the late Sheikh Hamad was not an engineer, nor did he have any formal education in building or construction, he managed to achieve so much in such a short space of time because of his never-ending sense of pride in quality, which formed his main focus, side-by-side with ensuring customer satisfaction and achieving goals.

Sheikh Ali Bin Hamad Al-Thani later assumed the presidency of the HBK Group and continued the tradition set forth by his father of focusing on meeting project timelines and budgets whilst maintaining the highest standards of safety and quality.

We interviewed Sheikh Ali, who explained how the HBK Group started in civil construction then moved to different sectors and services, predominantly those of oil and gas, mechanical, electromechanical and plumbing. HBK grew organically because of the nature of the construction industry in the region and the shortage of subcontractors who could deliver the quality required by HBK and embrace HBK's strategy of 'get it right the first time' and 'quality rather than quantity.' Currently, HBK's order book is in excess of QR4 billion.

The Gulf can be a difficult region to operate in, due to some cultural differences with other parts of the world and also due to its competitive nature, which is further complicated by many nationalities working in the region.

As the HBK Group continued to grow and to support its vision whilst maintaining quality – the abovementioned services were introduced through the establishment of separate companies in order to control the supply chain. The Group now includes HBK engineering, HBK Oil and Gas, Aluminium Technology, HBK Remix, HBK Precast Factory and HBK Trading, which are all independent and have to compete normally for business in the market.

Sheikh Ali believes that the vast experience that HBK acquired in the construction industry over the past decades, alongside the key factors of maintaining quality, efficiency and well organized working practices, continued internal improvement, not losing focus, adapting to technology and updating their business and systems, all contributed to the growth of HBK to date and in the future. As the construction industry in the region and Qatar is heavily guided by governmental expenditure, HBK has to embrace and adapt to constantly arising challenges. Obviously the infrastructure related to, and the stadium construction for, the 2022 FIFA World Cup will be a major contributor to drive growth. In addition, the implementation of HH the Emir's Qatar National Vision 2030 (QNV2030) is another major factor in the expected growth in Qatar over the coming years. This is being implemented now and the construction market is expected to be more dynamic and robust than before to build this vision.

The current reduced oil and gas prices have affected the construction industry, especially those contractors in the oil and gas industry itself. However, HBK Oil and Gas has not been affected so much, as the company focuses on maintenance, facilities, and quality assurance.
In Qatar, the private sector is also becoming a key player, which supports the continuity of businesses, rather than only depending on governmental projects. The reduced oil and gas prices have not materially affected the construction sector in Qatar due to the government's commitment to achieve HH the Emir's vision towards QNV2030. Sheikh Ali therefore sees the economy growing because of the committed projects and budgets.

Sheikh Ali explained that the Gulf can be a difficult region to operate in, due to some cultural differences with other parts of the world and also due to its competitive nature, which is further complicated by many nationalities working in the region. In his opinion, it is a matter of proper anticipation of what lies ahead in the market – new market entrants must be realistic about the working environment, must also adapt to the local norms, and need to be committed to the country. Contractors have to be organized to cope with the challenging market and most importantly the ever-changing workforce available to the market. These challenges are coupled with increased expectations of customers to deliver on time and within budget, a safely executed project which is completed to a very high standard. Contractors have to learn to manage projects more efficiently to meet the customers' expectations as well as meeting the contract administration requirements to collaborate with the appointed project consultants. Although it might be simple to enter the market, it requires commitment to remain and to be successful. Contractors should invest in the market for the long-term and they will then benefit from more business and success in the long run. Sheikh Ali believes that coming in as a foreign contractor should not be about a 'get-rich-quick' approach, but rather about understanding the unique local markets, 'getting your hands dirty,' and getting a good quality job done.

Local contracting companies must be robust as a lot of reliance is placed on local business. There are some general misconceptions about this market due to not fully understanding it – even by some very large international companies. A solution for international firms seeking business in Qatar is 'partnering' with local businesses on a long-term basis, e.g. buying shares in local companies, or entering some form of joint venture partnership.

The GCC countries are facing the same challenges, although the depth of these challenges may vary from one country to another. For example, the local work force, consisting of temporary laborers in the construction sector and coming from different cultures presents one of the biggest challenges. Governments are trying to adapt to the increasing local, regional and international demands of new labor laws, while maintaining the unique local culture and security. The skilled and qualified human resource challenge in Qatar requires both government and the private sector to partner to find mutually amicable and beneficial solutions.

Logistics also pose another challenge in the current environment. One needs to fully understand the procedures required by customs authorities in order to import goods, and any other goods certification requirements by the different authorities in the country. Land has proven a very tough challenge as availability is very limited and the cost of land has been driven up to unsustainably high levels as a result; all this land is required for construction, facilities, labor accommodation etc. The Qatar Chamber of Commerce is, however, currently collaborating with the government, and as a result, the government is now issuing temporary land to assist developers in genuine need of land parcels.

Qatar is different from the rest of the GCC countries and Middle East due to its fast pace of development and the urgency to complete large infrastructure on time and to a high standard. Qatar differs from most as a small country starting its recent development from a rather lower baseline and with limited existing infrastructure. Qatar is now a major focus of most international and regional contractors all targeting the new contracts coming to tender.

Governments are trying to adapt to the increasing local, regional and international demands of new labor laws, while maintaining the unique local culture and security.

Additionally, the eyes of the world are certainly focused on the country as preparations are underway and infrastructure is being built to facilitate the 2022 FIFA World Cup. Qatar is also unique as it has to balance spending and continual investment, from its recently created wealth fund accumulated from its large oil and gas reserves, to focus on investing in its own developing infrastructure and overseas interests.

The current priorities of the HBK Group are geared towards internal development, and robust yet efficient policies and procedures. Furthermore, the pressure on the execution of their projects to demonstrate being a sound professional local company is important and vital for the successful construction of Qatar's infrastructure. They are fully aware of the need to behave as a tier 1 contractor in their management, their approach, and commitments to complete projects on time and within budget. HBK is now in joint ventures with large international contractors to share their experience of the local market and to learn new and fresh ideas to complement and maintain its status as a tier 1 contractor. HBK's business model is based on cooperation with other international businesses, and the employment and engagement of international contractors and experience of individual professionals.

Contractors should focus on those long-term possibilities, as well as the short-term requirements of buildings for new hotels, offices, schools and retail associated with increased expatriate populations ahead of the FIFA World Cup.

Sheikh Ali sees opportunities in the market for building and infrastructure, and HBK will therefore continue growing subsidiaries and sister companies like Alu-tec and HBK Engineering Services, to diversify its service offerings and reduce its risk exposure.

The unprecedented growth currently being seen will not always continue at this pace; growth is expected to reduce after major government milestones are reached, e.g World Cup 2022 and the Qrail, although it will not stop. Contractors need to prepare and plan their businesses accordingly.

Sheikh Ali also stated that since the start of this year, they are seeing a considerable number of projects being awarded in quick succession, and are fortunate to have been awarded a number of prestigious projects, such as Kahramaa Mega reservoirs, Marina Mall in Lusail and Qatar Foundation Al Khor Academy, to name a few.

Longer term challenges for Qatar beyond 2022 are the major infrastructure projects like long distance rail, the expansion of the rail network into the GCC and freight links as well as the major expressways/motorways projects that will potentially happen over a longer time period.

Contractors should focus on those long-term possibilities, as well as the short-term requirements of buildings for new hotels, offices, schools and retail associated with increased expatriate populations ahead of the FIFA World Cup.

Beyond 2022, perhaps the building sector will see a relative downturn whilst civil engineering projects and infrastructure schemes are likely to continue as part of the rapid pace of change engulfing Qatar to achieve the QNV2030. Therefore, HBK expects a lot of work in the years ahead for those contractors who show long-term commitment to the market.

Sheikh Ali bin Hamad Al Thani
President of HBK Group

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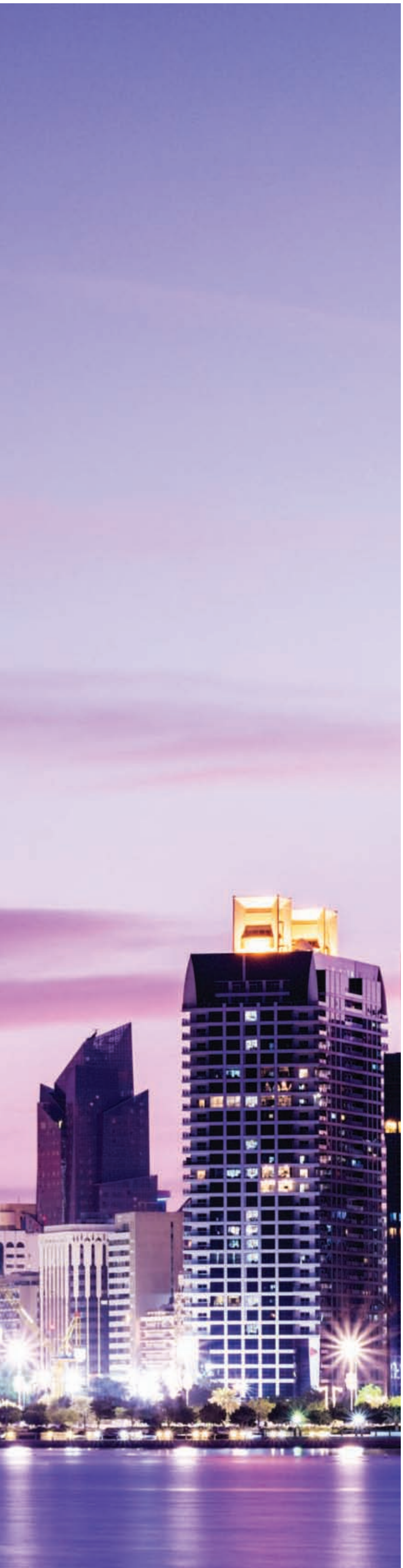


Development for sustained economic growth

The tale of a visionary Emirate

Think back to media images of the Middle East in the period 2006-2009 construction boom and what do you remember? The GCC region in particular was typified by seemingly endless footage of high-rise residential towers springing out of the desert, surrounded by sprawling construction sites and infrastructure projects that supported and connected them – well sometimes! Most iconic were the scenes of Nahkeel reclaiming the sea to form the Palm Jumeirah - a civil engineering feat of a scale and vision unseen before by mankind.

Fast forward to today, 2015. Has anything changed?
Whilst the overall scenes of tower cranes swinging above construction sites seem very reminiscent, the economic backdrop to this is very different - especially in Abu Dhabi. Gone are the 'trophy' schemes of iconic buildings looking to catch the headlines and eyes of the property world to attract high-end buyers. Gone too are the excesses of overly elaborate building shapes, irregular facades, water landscaping and the OTT opulence that signified the end of that 'heady era.'

What Abu Dhabi has seen in Singapore is a city that had risen from marshes into a true Asian 'tiger' by developing a long-term economic plan that has driven it to be one of the most successful economies in the world and one of the most sought after places to work, visit and live.

Over five years on from the 2009 crash, what have policy makers and boardrooms learnt and how is it influencing their strategies as development increases across the region? To understand this better, Abu Dhabi provides perhaps the best barometer I can think of, an example of how one Emirate has learnt so much on how economic development and successful capital investment (construction) are intrinsically intertwined. What have they done and why?

First, Abu Dhabi has successfully managed to reduce the 'boom-bust' rollercoaster of speculative development. The market has now become better balanced based on demand, not supply, reflecting the higher level of maturity in understanding how capital project development underpins sustainable economic development.

Next, learning from the lessons painfully learnt following the last boom, Abu Dhabi has reflected and taken a very foresighted and outward orientation over the last few years. Whilst other parts of the GCC have 'bunkered down' dealing with the effects of the global financial crisis and property collapse, Abu Dhabi has chosen instead not to just hibernate but actively seek out, look and observe other innovative countries and cities to understand how they have developed. Infusing these influences and observations, Abu Dhabi has a new more progressive model for future investment and development. Singapore is one of the cities Abu Dhabi has studied. It has looked at every aspect of which it has developed, increasing trade, commerce and political links with it. All this thinking has been embodied in Abu Dhabi's Vision 2030 plan that sets out its core strategic objectives and priorities, the results of which are beginning to shape the Emirate's economic and fiscal strategies which will 'power' it, in an economic sense, over the next 30 to 50 years.

What Abu Dhabi has seen in Singapore is a city that had risen from marshes into a true Asian 'tiger' by developing a long-term economic plan that has driven it to be one of the most successful economies in the world and one of the most sought after places to work, visit and live. A real economic engine with a built environment 'engineered' to support it.

Taking this inspiration and that of other successful new cities, Abu Dhabi has, rather than focus on pure residential development, developed key longer term economic strategies at a macro-level and matched these with core infrastructure investment to provide the catalyst for a future more diversified economy, one not principally based on oil. In doing so, Abu Dhabi has challenged and thrown out the traditional oil income model, for a newer, bolder direction based on core infrastructure, key industries and employment that will support the vision to be a truly fully diversified, international city.

Whilst the tower cranes stopped swinging elsewhere over the last five plus years, Abu Dhabi has initiated major capital projects to support its long, not short-term, key economic strategies:

Transportation

Aviation - The commencement of the AED10.8 billion, 30 million passengers per annum, Midfield Terminal at Abu Dhabi International Airport in 2012, was the first indicator of a new economic development strategy. With passenger numbers increasing exponentially with the success of Etihad Airways globally, the need to establish Abu Dhabi as a global aviation hub was sealed. Driving growth through investment in Etihad's fleet as well as code-sharing with other national airline partners, travelers have increased as have inward and outward business trade opportunities locally and globally. To support this, Abu Dhabi committed to completing hotels across the city and investing in leisure attractions (Yas Mall, Yas Water World…) to attract and retain visitors, giving direct local economic impact as well as showcasing and profiling Abu Dhabi to an ever-increasing world market which are increasingly investing in its vision.

Ports - In parallel, the delivery of the Khalifa Port in 2012 at the cost of US$7 billion, provides Abu Dhabi with one of the largest container ports in the world. This will act as an 'economic gateway' catalyst to drive import and export opportunities, as well as develop a new industrial zone around KIZAD, to eventually include a manufacturing hub, meaning more local investment and reducing reliance on imports for the decades to come.

Rail –The construction of Etihad Rail's US$11 billion, 1,200 km-long rail network, started in 2011. This will eventually link the oil and related industries in the Western Region through the Emirates, connecting to KIZAD and onto the UAE's eastern coast bordering Oman. The investment in this state of the art freight railway network will revolutionize the transportation of raw, refined and manufactured goods – improving speed, driving down transportation costs and increasing Abu Dhabi's competitiveness and freer access to international markets.

Abu Dhabi was one of the first in the region to recognize the need and priority to develop new modern housing developments to house, support and develop its citizens.

Power – Probably one of the most visionary developments in the last five years has been the UAE's development of its nuclear power capability through the Emirates Nuclear Energy Corporation (ENEC). Planning for a 'life after oil,' the UAE was the first Arab nation to be licensed to generate electric from nuclear power. Ruwais, Abu Dhabi, was chosen as the location to build the stations. The first power is expected to be generated in 2017 as part of the UAE's investment of US$20 billion with a joint capacity to generate a combined 5,600 megawatts per year, reducing its reliance on oil to power economic growth. This has to be the testament of the vision of the nation and the trust of the world the UAE now generates to allow it to build under international license the first of its kind in the Middle East. What a barometer reading!

Social infrastructure

National housing – Abu Dhabi was one of the first in the region to recognize the need and priority to develop new modern housing developments to house, support and develop its citizens. Situated on the prime outskirts of the major cities, these developments are drawing from the very best in urban planning to create new vibrant world-class communities in a modern high-quality environment, with amenities, including retail, schools, recreation and the like, yet still reflecting the local culture, heritage and way of living. In the last five years, the government has invested extensively in these new communities, providing thousands of new homes.

Education – Recognizing the pivotal role education plays in a country's economic development and success, Abu Dhabi, through Abu Dhabi Education Council (ADEC), embarked in 2010 on an ambitious ten-year schools program to improve the physical current schools, build 300 new world class schools and close and replace ageing villa schools to improve the standard of education across the Emirate. In parallel, it encouraged increased private sector investment and development in the international schools' sector, to provide expatriates with an ever increasing 'open market' access and choice of great schools. In doing this, Abu Dhabi is recognizing the growing need to attract the best world talent and their families for the decades to follow. In the last five years, Abu Dhabi has also been very active in the further and higher education sectors, delivering two of their flagship projects in the period - New York University and UAED Al Ain.

The private health sector has flourished, responding to Abu Dhabi's health insurance scheme, another first in the region, where all residents can choose their treatment provider.

Healthcare – Significant focus has been on improving access to and quality of public healthcare, including the new US$600 million, 739 bed Mafraq hospital that started in 2011, and the imminent opening of the new US$1.6 billion Cleveland Clinic in downtown Abu Dhabi, which will offer 364 beds, and specialist operating and treatment facilities to rival any facility, anywhere in the world, that started in 2010. In parallel, the private health sector has flourished, responding to Abu Dhabi's health insurance scheme, another first in the region, where all residents can choose their treatment provider.

What really stands out is the time window in which these key investment decisions were made by Abu Dhabi, 2010-2012 – the time where elsewhere in the GCC, markets were quiet.

It reflects an increasingly 'mature' capital projects market, focusing on creating the framework for future investment in trade and commerce, to grow population for housing, education, recreation and long-term partnerships. A platform to capture and harness new investment, new thinking and collaboration that will result in enormous opportunities wherever you sit the planning, financing, development, execution, operation or divestment value chain in the construction industry.

To date, we have talked about things that make direct economic impact, but there are two areas that have more profound influence on the 'health' of Abu Dhabi and the wider UAE.

Tourism, culture and heritage - Taking its lead from other international cities such as Singapore, the development of Saadiyat Island as Abu Dhabi's cultural district will define it as the cultural hub for the Middle East, drawing visitors, domestic and international, over the coming years to visit its iconic museums, the Louvre, Guggenheim, Sheikh Zayed and others to follow. This will secure year-round visitors to experience these developments, enjoying the surrounding cultural communities and the hospitality of the purpose-build hotel complexes, art and cultural facilities with natural beauty and a mesmerizing array of activities from golf courses to Formula 1 racing, to waterparks and many more, at the highest standards of quality and service.

Similar parallels can be drawn between Saadiyat Islands' development and that of Singapore's Sentosa Island – created to provide a leisure, recreation and cultural focus.

Defense - Over the period, the government has continued to invest in facilities for home defense as well as its role in the wider Middle East. Recognized as one of the safest places in the world to live in, these projects support the long-term safety of the region - thereby assuring continuing confidence in future global inbound investment.

Thinking back to those images of a sea of tower cranes rising out of the desert on the media in 2006 and comparing it to what we have discussed, we have come a very long way - longer and further in five years than what most countries achieve in decades.

Granted there have been some mistakes, over exuberance, great triumphs and some lows, but look how the barometer looks now in light of what Abu Dhabi has and wants to achieve. In a period of global financial problems, Abu Dhabi could have done nothing and adopted a 'hold' position. Instead, it has chosen a 'bold and expansive' plan for its economic future, and that of everyone involved in the built environment, wherever you sit in the value chain.

We all have within our industry, our organizations, our professions and in ourselves, the chance to step forward and take part in the realization of this enormous opportunity. If we look at Abu Dhabi as the barometer for the Middle East for investment and ambition we should be nothing but optimistic in what we achieve 'together.'

Thinking back to those images of a sea of tower cranes rising out of the desert on the media in 2006 and comparing it to what we have discussed, we have come a very long way - longer and further in five years than what most countries achieve in decades.

Andrew Jeffery
Managing Director
Capital Projects Advisory
Middle East

Construction C-suite survey

During March and April 2015, Deloitte conducted a survey targeting construction company CEOs and CFOs (C-suite members) to obtain their views on a range of topical issues impacting the construction industry across the GCC region.

This is a 'pulse survey' that provides C-suite members of construction firms with information regarding their peers' thinking regarding these issues. It is not, nor is it intended to be, scientific in its number of respondents, selection of respondents, or response rate.

Following is a summary of the key findings arising from this survey.

Optimism remains

Despite the continuation of geopolitical risks and the instability of oil prices impacting the GCC over the past six months, C-suite respondents are optimistic. 71% of respondents are more optimistic about the financial prospects for their companies compared to 12 months ago.

This optimism flows through to the financial statements, with 83% of respondents anticipating growth in revenues over the coming 12 months, while 68% expect this growth to translate into an improvement in operating margins.

This sentiment is driven largely by external factors impacting companies (71%) compared to internal/company specific factors. The volume of tender opportunities, particularly in the UAE, Qatar, KSA and Oman, is picking-up, and contract awards appear to be occurring at a faster pace than we have experienced in the past few years, which is potentially contributing to this improved sentiment.

Preparation for key regional events such as the World Expo in Dubai in 2020 and the Football World Cup in Doha in 2022, would appear to have a limited impact on this perception of optimism, with 32% of respondents expecting no direct impact from these events to them, and 59% anticipating only a small impact on their business from preparation work for these events.

Cash flow management

Cash flow management remains a key concern for a majority of construction companies. A closer look at the cash flow cycle explains why this is such an issue:

On average, how many days is your revenue locked up in uncertified WIP ?

Certification generally occurs:	% of respondents
Within 31-90 days	53%
Within 91-180 days	21%

On average, how many days is your revenue locked up in certified receivables ?

Payments are received:	% of respondents
Within 1-60 days past credit period	44%
Within 61-120 days past credit period	50%

Preparation for key regional events such as the World Expo in Dubai in 2020 and the Football World Cup in Doha in 2022, would appear to have a limited impact on this perception of optimism.

The above implies that the monthly progress payments will take somewhere between 31 and 180 days to be certified according to 74% of respondents, with the remaining 26% either taking longer or being certified immediately.

Once certified, an invoice is issued, and the certified receivable is collected for 94% of respondents somewhere between 1 and 120 days after the contractor's credit period has elapsed (which is typically around 30-60 days).

Therefore, from the time the work is completed, the collection cycle takes:

a) approximately 90 days to certify a progress billing
b) a typical receivable credit period of 45 days
c) approximately 90 days to collect certified receivables

This adds up to a total of 225 days from completing the work to collecting the cash. This protracted collection period can and has put a strain on construction companies' cash flows. Employees and laborers still have to be paid and materials need to be procured, and the contractor then typically ends up funding this. For this reason, 86% of respondents have identified collection of receivables and work in progress (WIP) recovery as a key priority for the business over the next 12 months. There is still a focus on collecting legacy receivables for many contractors which impacts this view significantly.

Interestingly, 62% of respondents expect no change in the average days in receivables and WIP (i.e. the collection cycle) in the next 12 months, implying this is an issue contractors have accepted they are powerless to control in the short term.

Pricing risk

While winning new work is a strong priority for 79% of respondents, their approach to pricing bids to secure new work differs considerably as demonstrated in the chart to the right.

While securing new work at an appropriate commercial margin to improve the bottom line seems to be a focus for the majority (47%) of respondents, a large proportion (27%) of contractors are still focused more on winning new work, and are willing to accept small or no margins at the tender stage to try to secure a project. This approach results in the contractor running a high risk of project losses being incurred as they have very little margin to cater for typical project risks and unforeseen project complications which regularly arise on projects in the GCC.

Respondents were then asked to compare, on average, their final realized project gross margins relative to the initial tender gross margin. Actual realized project gross margins were less than the original tender margin for 50% of respondents, and approximately the same as the tender margin for 50% of respondents.

No respondents confirmed that actual gross margins were typically higher than the tender margin. Pre the financial crisis, it was common for contractors to accept new work at a lower tender margin, and then look to increase this margin via pricing on variation orders anticipated to be received. It would appear this strategy is no longer favorable, as indicated by only 6% of respondents employing this pricing strategy as noted above, presumably due to the inherent risks this involves.

What strategy have you typically adopted in pricing bids to win new work?

	% of respondents
Priced at break-even with a view to make a margin on change orders	6%
Priced in risk with a small margin	21%
Priced in risk with a commercial margin	47%
Priced at an annual targeted margin set by the group/company	26%
Total	100%

To help understand why final project margins were lower than the tender margin for 50% of the respondents, the forecasting process used by contractors was also examined. Given all projects involve some level of risk in relation to unknown circumstances/costs which may arise during the course of the project, we asked respondents how they typically mitigate such risks during the tender process. The responses were as follows:

How do you typically mitigate unknown risks during the tender process?

	% of respondents
Modify contractual terms to exclude certain perceived issues on the project	13%
Include contingency provisions in your forecast cost to allow for potential issues which may arise	56%
Make a best estimate assumption on the risk to include in your forecast cost, and hope for the best	31%
Total	100%

The majority of respondents in the survey (53%) consider that the level of contract claims has increased since the financial crisis impacted the Middle East region.

While approximately half (56%) of contractors appear to be pricing in risk to their tender forecasts through risk or contingency provisions, it appears the remaining 44% of respondents may be a little less conservative during the tender process. This may be for commercial or other reasons, and may help to explain why final project margins were lower than the tender margin for 50% of survey respondents and also why there is a long collection process on uncertified WIP where contractors have a protracted negotiation period to recover these cost through claims.

Given these pricing risks, and the cash flow management issues (mentioned above) facing many contractors, respondents were also asked if they would consider funding a project or a portion of a project in order to secure the bid. 78% of respondents would consider this on a case-by-case basis provided the project margin warranted the additional risk of bringing project finance onto the contractor's balance sheet.

Impact of contract claims

The majority of respondents in the survey (53%) consider that the level of contract claims has increased since the financial crisis impacted the Middle East region. Despite this perceived increase in volume of claims, 62% of respondent companies do not recognize uncertified/unapproved claims within contract revenue in the financial statements. Such claims revenue is effectively deferred until it is certain of recovery and approved by the contract owner.

Based on the fact that claims are not being recognized as revenue until formally approved in the majority of cases, respondents were asked how significant the anticipated settlement of these unrecognized claims to their profit or loss would be, with the following responses:

How significant is the anticipated settlement of unapproved claims to your profit or loss? ?

	% of respondents
Likely settlement expected to be less than 1% of revenue	48%
Likely settlement expected to be between 2% and 5% of revenue	19%
Likely settlement expected to be more than 5% of revenue	19%
Contract claims are already included in contract revenue	14%
Total	100%

While it is likely some of these claims will be back-to-back with subcontractors' claims, there is a significant amount of potential profit still to be realized on unapproved claims for many contractors, which will go a long way to shoring up the financial position of these contractors after the past few leaner years for the contracting industry in certain markets.

Project risk and reporting

When asked what key concern was keeping construction CEOs and CFOs awake at night, respondents advised as follows:

What are the key concerns impacting CEOs/CFOs at present ?

	% of respondents
Political instability and/or declining oil prices impacting government spending/project funding	37%
Delivering projects on time and within the budget	22%
Cash flow management/collection of receivables	19%
Workforce skills shortage/retention	11%
Other	11%
Total	100%

Despite events such as the Football World Cup in Doha and the World Expo in Dubai in the near future, the number one concerns raised by respondents were the geopolitical instability in the wider region, the decline in world oil prices, and the impact these may have on local governments' appetites for construction projects in the short to near term. This in turn impacts the growth prospects for contractors, and is understandably a key concern for C-suite members.

Delivering projects on time and within budget was also a key concern noted above. 82% of respondents also stated this was a priority focus area for their business to concentrate on during the forthcoming 12 months.

When asked to rate the information systems currently in use in the contractors' business, 56% of respondents classified their information systems as being robust, but said that they are currently not being used to their full potential (for example, Excel documents are still being widely used to perform tasks that could be performed just as easily, if not quicker, within the system).

Despite the perceived reliance on spreadsheets outside of the main information systems, 53% of respondents said the senior management team at their organization received monthly or quarterly project summary reports and updated project forecasts. A further 34% of respondents have periodic management meetings to discuss project statuses and updated forecasts on projects, thus ensuring senior management is kept informed of project progress and pertinent issues being faced, such as cash flow management and claims.

Overall, it would seem that there are some key improvements required in the way contractors manage their costs and budgets on projects, especially while the competitive landscape for tendering is still very tough and there is little room to maneuver on thin project margins. This, along with the constant focus to strongly administer contracts and have detailed supporting documents to support claims and variations, is critical if costs are to be recovered in the long run.

34% of respondents have periodic management meetings to discuss project statuses and updated forecasts on projects.

Therefore, it is likely that the cash collection cycle will remain a continuing feature on any CEO and CFO's daily dashboard – especially where we are seeing a market requiring more project finance.

Cynthia Corby
Partner
Construction Industry Leader
Middle East

Scott Juergens
Audit Principal

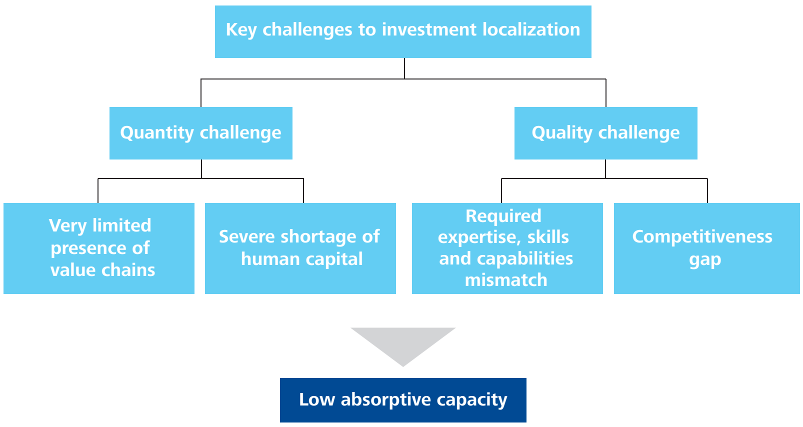
A KSA infrastructure boom

Absorbing the economic impact

You do not need to travel around too many cities in the GCC countries to appreciate that governments are investing heavily in infrastructure, in a bid to support urban expansion. The rationale is that having an efficiently working economy where people can move reliably around the ever expanding urban environment, requires investment in integrated public transportation systems. Take KSA as an example, where six cities are actively designing, or, in Riyadh's case, building integrated public transport systems, with each program registering in the tens of billions of dollars' worth of government expenditure.

Whether you are an advocate of the various economic theories related to public sector expenditure as a tool to stimulate an economy or not, the fact is that governments are pouring money into industries that have had, in the past, a tendency to send this money overseas to buy the goods and services necessary to fulfill their contractual obligations.

The issue with localization



Whether you are an advocate of the various economic theories related to public sector expenditure as a tool to stimulate an economy or not, the fact is that governments are pouring money into industries that have had, in the past, a tendency to send this money overseas to buy the goods and services necessary to fulfill their contractual obligations.

This 'offshoring' of money (or 'economic leakage') is considerable: Deloitte's own analysis suggests only a little over 20% of the direct cost of a capital program in KSA is typically retained within its domestic economy. But this is only part of the story. Particularly, in the public transport sector, major capital programs have long operating lives, often in excess of 100 years (think, for example, of transport systems in some of the major capitals across the world, such as the London Underground or the New York Subway). Day-to-day operating costs, maintenance, expansion, upgrades and replacement of these systems, over the long-term, often dwarf the initial capital cost of establishing the network. This points to potentially enormous repercussions in terms of economic leakage, far beyond the initial capital expenditure, but also significant opportunities to generate a sustainable economic impact locally if seized. Before we consider some of the actions to prevent this economic leakage, it is important to look at why economies in the region struggle to absorb and retain capital and operating expenditure. Deloitte's analysis shows that economies face two primary challenges in this regard – the presence of a suitable and scaled supply chain and a capable workforce (the 'Quantity Challenge') and access to appropriate levels of technical and delivery skill that is available in a competitive and timely manner (the 'Quality Challenge').

These challenges conflict with the pressure on a public transport program to achieve a good quality solution for citizens in as short a timescale as possible, and therefore provide a justification for the use of foreign goods and services – which include:

- **Constructing effectively and efficiently:** the objective of the program is a public transport system, for the satisfaction of local residents. Its success will be measured against these transport objectives.
- **Achieving technologically advanced solutions:** it is wholly unrealistic to wait for a local economy to develop the technical capabilities, when they can be brought in from abroad.

- **The maturity of the public private interface:** complex primary contracting arrangements need the orchestration of construction, design, engineering, technical and supply services, which may not be available locally.

So is it worth investing in addressing the 'quantity' and 'quality' challenges? Your answer may depend on your view of economic investment and whether a financial or social return is preferred, although often both are inextricably linked. National economic development policies across the region focus on sector or cluster building, so major public transport should not be exempt from contributing results to these policies and stimulating what would be new sectors for most countries in the region.

The diagram below distills the key campaigns required to deliver local economic impact and sustained economic development:

National economic development policies across the region focus on sector or cluster building, so major public transport should not be exempt from contributing results to these policies and stimulating what would be new sectors for most countries in the region.

For an example of success in developing a local economy to improve absorption, looking to Istanbul is highly recommended. The city-owned metro system operator (Ulsam) took the responsibility 10 years ago to actively engage with local businesses to help them become manufacturers of components for its metro trains (originally supplied by German and French manufacturers). Over the course of seven years, Ulsam all but replaced foreign component suppliers with local alternatives – in the process cutting costs by up to 75% and significantly improving supply time reliability. A decision to commit time and share technical know-how resulted in financial savings for the operator and job creation in the local economy, which is a clear 'win-win' situation.

Ultimately, success will be driven from having the vision to see public transport as an opportunity for economic development and the leadership to navigate local stakeholders through a long-term and complex program.

Another good example is the Tunneling and Underground Construction Academy in London, a joint venture between the Crossrail contractors and industry training organizations, that is delivering relevant skills and qualifications within the workforce for the Crossrail project, and a legacy of leading expertise to be exported globally.

Each project and country has its own specific challenges to address, but the delivery of a successful strategy that increases the local economy's absorption of expenditure (both capital and operational) and supports an economic development agenda can be seen through the following indicators.

Indicators of success

- Leadership and ownership of the benefit realization agenda: presence of a stakeholder whose mission and vision is to achieve local impact
- A set of clear goals, grounded in reality: a strategy that pushes the envelope of local capabilities and capacity, without jeopardizing the delivery of the project
- Incorporated in the contractual components: considering local impact from the outset and building appropriate obligations for contractors
- Strategic joint ventures: recognizing the opportunity for knowledge transfer to the local economy from the international markets
- Scale to retain the impacts: the opportunity for the developing local sector to learn and do more on future projects

Ultimately, success will be driven from having the vision to see public transport as an opportunity for economic development and the leadership to navigate local stakeholders through a long-term and complex program.

Neal Beevers
Senior Manager
Monitor Deloitte

The changing focus of airport investment

The facilitator of economic progress

The Middle East's major regional airlines are increasing their market share, and establishing their respective airports as global hubs for international travel. The growth of Emirates (EK), Qatar Airways (QTR) and Etihad Airways (ETD) has challenged their base airports to deliver the required infrastructure and provide the customer service expected by the discerning traveling public. Also, within the GCC countries, KSA, Oman, Bahrain and Jordan, are all undertaking significant modernization programs of their airports. However, could the region's approximately US$100 billion pipeline of airport development be at risk with declining oil prices? And if there are lower levels of funds available for capital expenditure, are there alternative ways for increasing capacity?

Over the past five years, the region has achieved a compound average growth rate (CAGR) in passengers of 13.1% and the International Air Transport Association (IATA) is forecasting continued growth at a CAGR of 4.9% to 2034. Each of the airlines that support the region's major hubs, including Dubai International Airport (DXB), Hamad International Airport (DOH) and Abu Dhabi International Airport (AUH) are each pursuing, arguably, very different growth strategies.

Emirates is seeking to grow organically and through strategic alliances, Qatar Airways through global alliances, and Etihad through partial ownerships of international airlines. There is every possibility that all the regions' hub airports will achieve their growth forecasts through growing market share by challenging the traditional hub airports of Asia and Europe.

Emirates is seeking to grow organically and through strategic alliances, Qatar Airways through global alliances, and Etihad through partial ownerships of international airlines.

Regional aviation growth has been led by Emirates, which has resulted in the continual expansion of Dubai International Airport since the 1990s. Beyond the capacity of DXB, Dubai is planning the expansion of the second airport, Dubai World Central (DWC), with phase 1 of the US$32 billion expansion to be delivered by 2022. The government of Dubai is forecasting and planning for DWC to be the world's largest airport with an ultimate capacity of 160 million passengers and 12 million tons of cargo per annum. Integral to this growth will be the continuing success of Dubai acting as a maritime, aviation and logistics cluster facilitating the efficient transition of both people and products globally, in addition to continuing to develop Dubai as a tourism destination.

Qatar has recently completed the much anticipated development of the new Hamad International Airport at a cost of US$17 billion to facilitate forecast growth of 28-30 million passengers by 2018. Qatar Airways is seeking to leverage its membership of the Oneworld Alliance and is also now IAG's (the owners of British Airways and Iberia) largest shareholder. This provides IAG with greater access into the high growth markets of India and Southeast Asia while giving Qatar access to IAG's strong European, Transatlantic and South American networks.

Abu Dhabi Airport is well advanced with delivering the new mid-field terminal at an estimated construction cost of US$2.94 billion which will deliver a terminal with capacity for 30 million passengers per annum. This will support Etihad's growing portfolio of airlines which has resulted in Abu Dhabi Airport achieving 20 million passengers in 2014, a 20% increase on the previous year. Continuing to grow at this rate may put significant pressure on the existing infrastructure prior to commencing operations from the new mid-field terminal in 2017.

Also, within the GCC, KSA is investing heavily to modernize its airport infrastructure. The sheer size of the Kingdom combined with relatively weak internal connectivity is demanding significant improvements to its airport network. Also, Oman is well advanced in delivering its modernization program with the recent opening of its new runway and significant progress on the delivery of its new terminal with a capacity of 12 million passenger per annum. This will support Oman's increasing focus on tourism and the expansion of Oman Air.

There is much speculation that the significant decline in oil prices is expected to have far-reaching effects on the economies of the region. This has cast a shadow over the potential risk for certain capital projects being scaled back, including airports. Our expectation is that this may to an extent be true for certain marginal projects. However, the reason many of the region's governments are so focused on investing in their aviation industries is to diversify their economies away from their historic reliance on oil. Restricting, or scaling back, investment as a result of potentially short-term commodity price fluctuations will run counter to these long-term strategies. Deloitte expects there will be changes to governments investment strategies and that some projects may be scaled back and/or partly deferred, but overall, the region will continue to invest in their airports to meet passenger growth. Also, as a result of more challenging government budgets, there will be a greater focus on project fundamentals including value engineered design, efficient project cost control and greater consideration of full asset life cycle costings. This can only be positive to instilling a culture of efficiency and having a commercial view on creating assets against an appropriate return on investment and robust business case.

There is also the potential for this to further support the region's PPP market, as the governments seek to leverage private sector capital and operational know-how. A relevant example of this is the developing

The reason many of the region's governments are so focused on investing in their aviation industries is to diversify their economies away from their historic reliance on oil.

pipeline of airport concessions in KSA where the General Authority of Civil Aviation (GACA) has already tested a number of alternative partnering arrangements including Build Transfer Operate (BTO) for Madinah Airport and operations and maintenance concessions for Terminal 5 at King Khalid International Airport in Riyadh. In the future we expect to see increasingly innovative financing solutions to develop infrastructure and attract established airport operators to develop capabilities in KSA and transfer knowledge.

Against this backdrop of commercial pressures and greater public scrutiny on delivering value for money, there is an increased priority for capital projects to be delivered efficiently and by fit-for-purpose organizations. Setting up the delivery strategy and organization at the start of the project is, of course, critical to success, and this is something that Deloitte has been supporting a number of global and regional airports to achieve.

Airports are increasingly seeking to minimize the upfront cost of developing airports by optimizing capital investment to core assets aligned to the organization's capabilities. As a result of increasing technology being incorporated in airport terminals, we are witnessing increasing outsourcing of baggage systems and IT solutions. Outsourcing allows the airport operator to concentrate on value-added activities, reduce upfront capital costs, transfer risk to service providers, capture, guarantee and accelerate savings, and transfer to a variable cost structure. An interesting example of this is Mumbai Airport, which outsourced its complete IT infrastructure through the creation of a separate joint venture partnership with the service provider. We expect this trend to continue as governments seek more innovative business partnerships to reduce the capital requirements to develop their airports.

However, increasing capacity is not always about constructing more terminals and runways. Improving how airports operate, 'sweating the assets' by improving staff capabilities and better ways of working through the application of technology, are becoming increasingly important and a more cost-effective alternative to further construction. Nowhere is this more evident than in the London market where optimizing the capacity of existing infrastructure has enabled the South East London airport network to continue to grow; however, even this is reaching capacity.

We expect the region's airports to continue to focus on driving greater efficiencies and an enhanced passenger experience from existing infrastructure through the deployment of new technologies and improved ways of working to meet the service levels expected by passengers.

Creating world-class airport infrastructure is only part of the challenge to producing a best-in-class passenger experience. Delivering on this challenge requires the right combination of technology employed, product offering and service delivery, which requires continuous improvement of organizations' people. Improving the passenger experience will be critical for all the region's airports to capture market share and monetize passenger throughput to achieve appropriate returns on investment.

The dynamic growth of the region's aviation industry will continue to demand further infrastructure to be delivered. However, we expect that as the availability of funding becomes more challenging, there will be improvements in project controls and an increased focus on value for money from planned projects. At the same time we expect the region's airports to continue to focus on driving greater efficiencies and an enhanced passenger experience from existing infrastructure through the deployment of new technologies and improved ways of working to meet the service levels expected by passengers.

Dorian Reece
Director
Head of Airports UK and Middle East

GCC building materials industry set to be challenged by the emerging trends in 2015

Setting the scene

The manufacturing of building materials in the GCC plays a vital role in supporting the building and construction sector, which is one of the main pillars of regional industrial and economic development contributing to economy diversification and job creation. Although the current capacity of key building materials in the GCC, ranging from cement, concrete, glass, plastics to metal products such as steel, is largely absorbed by the regional construction market, the developing macroeconomic changes could have a significant impact on this trend.

While the trillions of dollars' worth of infrastructure projects led by the Gulf countries would continue to drive the building material industry in the GCC[1], there are imminent challenges facing the growth of the industry in the medium to long-term. The recent sharp decline in oil prices and revenues, slower economic growth prospects, reductions in energy subsidies and ongoing natural gas shortages in the region are primary factors that could have a negative impact on the GCC building materials industry. The oil price evolution would significantly determine the future capacity and market size of regional suppliers to compete against low-cost market players such as China and Turkey.

Building material suppliers will, therefore, need to keep a close eye on the trends emerging on the macroeconomic landscape and make strategic decisions around the deployment of their capital and resources to benefit from the growth opportunities presented in the region.

Assessing the size of the GCC building materials

The building materials sector is very diverse and range from construction products (e.g. cement, sand, gypsum, stone, glass and fiber glass) to plastic materials used for piping and insulation and metallurgical industries such as steel and aluminum used to manufacture construction materials.

The Gulf Organization for Industrial Consulting (GOIC) estimated that in 2013, the building materials sector's investments were almost US$34.5 billion (9.3% of the total industrial investments), employed nearly 234,000 workers (17% of the overall industrial workforce) and operated 2,741 plants (17.5% of the total factories).

Snapshot of the contribution of building materials to the GCC industry (2013)

US$34.5B of investments

2,741 firms

234,100 workers

*Average growth rate (2009-2013)
Source: GOIC, 2014

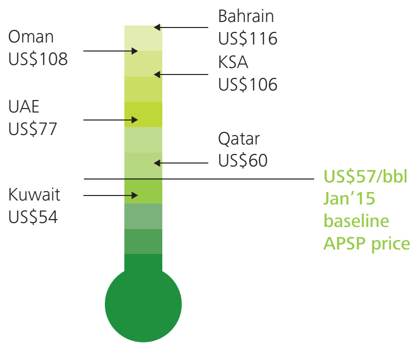
Given the heavy dependence of the GCC construction industry on energy revenues, the most significant event of 2014 for the industry has been the sharp plunge in oil prices.

Understanding the recent macroeconomic changes impacting the industry

Potential slowdown in infrastructure projects if low oil prices persist over the longer term

Given the heavy dependence of the GCC construction industry on energy revenues, the most significant event of 2014 for the industry has been the sharp plunge in oil prices. The price of crude has decreased by more than 50% since June 2014. As a result of this new price environment, all GCC countries, with the exception of Kuwait, are forecast to run fiscal deficits in 2015. In the short-term, the deficits that GCC countries are likely to encounter are not perceived to be a pressing concern, due to the strong fundamentals of most of these nations, particularly the large financial buffers they have accumulated and their low debt levels. However, if oil prices remain subdued for an extended period, this will place a growing strain on public finances and may slow down their capital and social spending levels.

Estimated fiscal breakeven oil price (US$/bbl)



Country	Fiscal deficit (% of GDP)	
	2014	2015
Bahrain	-5.4	-12.1
Kuwait	21.9	11.1
Oman	-1.4	-16.4
Qatar	9.2	-1.5
KSA	1.1	-10.5
UAE	6.0	-3.7

Source: IMF Regional Economic Outlook, Jan 2015

Deloitte MarketPoint forecasts average 2015 West Texas Intermediate Crude Oil (WTI) price to reach US$62/bbl and then to rise gradually over the next few years until it reaches a new steady range of US$75-$80/bbl as early as 2018. Similarly, the Energy Information Administration (EIA), the US Energy statistics and analysis agency, expects the WTI crude oil price to average US$55/bbl in 2015 and then gradually increase to reach US$71/bbl in 2016.

Low oil prices increases volatility in the energy-intensive building material industry and decreases regional cost competitiveness

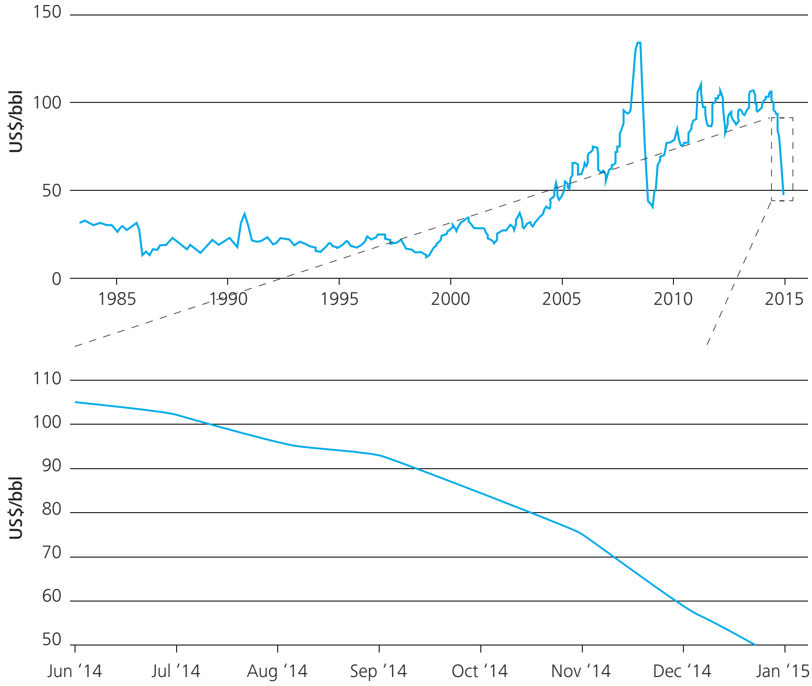
In addition to the impact on the fiscal position of GCC governments, the dip in the oil prices will likely impair the prices of petroleum-based industries, including steel, cement, asphalt, roofing materials, insulation, plastic and other building materials as energy costs constitute a major input in their production. This will lead to a decreased competitive advantage for GCC producers.

The price of steel has already fallen significantly since last year's oil price drop and is forecasted to remain volatile, similar to other building materials. For instance, in Abu Dhabi, major building material groups have witnessed price decreases of between 0.4% and 13.6% in February 2015 compared to figures from the same period in 2014[2].

Slowdown in the world economy has trickle-down effect on the GCC market

Another key threat challenging the demand and supply balance of the building materials industry is the downturn in the global economy which is expected to grow slower than earlier anticipated due to a weaker growth in Japan and Europe, a sizeable slowdown in China's rapid growth and volatility in emerging markets. The slowing of the Chinese economy specially has direct implications for the UAE and the GCC, a significant one being the impact on the building materials industry oversupply: indeed, reduced construction and industrial activity in China has led to a weak domestic and global demand which is likely to increase the dumping of excess building materials like steel by Chinese manufacturers at cheaper prices in the GCC impacting the revenues of regional manufacturers.

Oil prices



Source: US Energy Information Administration

Another key threat challenging the demand and supply balance of the building materials industry is the downturn in the global economy which is expected to grow slower than earlier anticipated due to a weaker growth in Japan and Europe, a sizeable slowdown in China's rapid growth and volatility in emerging markets.

GCC building material producers face limited gas supplies and rising utility costs

A looming threat to the energy-intensive building materials industry remains the limited local gas supply in the region. Most countries are net gas importers and the regional focus on energy-intensive industries has put pressure on the allocation of gas. GCC countries will need to address their gas challenges through diversification of gas supply portfolio, exploring alternatives and assessing short- and long-term domestic needs. An added challenge, which has impacted the cost structure of energy intensive industries such as steel, is the rise in water and electricity tariffs structure for industries, as introduced in the UAE, Oman, and Bahrain. For instance, in Abu Dhabi, electricity pricing for industrial has recently doubled during summer peak hours[3].

In the midst of the oil price and economic volatility, the key driving force for construction activities remains the government's commitment towards economic diversification and infrastructure projects.

Construction materials – Key trends and market growth

Segment	Projected global market size	Projected global CAGR (2013-18)	Projected regional market size	Projected regional CAGR (2013-18)
Cement	4,600Mt (2017)	+4.6%	147 Mt (2017)	+4.6 %
Finished steel	1,677 Mt (2019)	+2.9%	50 Mt (2020)	+ 3.8%
Aluminum	66.7 Mt (2020)	+5.9%	8.2 Mt (2020)	+ 4.9%

Aside from the gas shortage, heavy reliance on the energy sector and the market dumping from low price imports, the lack of national engineers and the competition for funding through commercial means are other key challenges hampering the growth of the sector.

Infrastructure projects will be the primary driver of the building materials growth

In the midst of the oil price and economic volatility, the key driving force for construction activities remains the government's commitment towards economic diversification and infrastructure projects. In a typical construction project, the building material cost component is estimated at 58% of the total cost of the project. At an aggregate level, growing infrastructure investments are expected to drive demand and growth of building material in the GCC region. Preparations for the FIFA World Cup in Qatar in 2022 and the Dubai Expo 2020 are expected to generate healthy project activity across the GCC region that will fuel the market for construction materials and act as a catalyst for further developments.

Assessing key building materials industry outlook

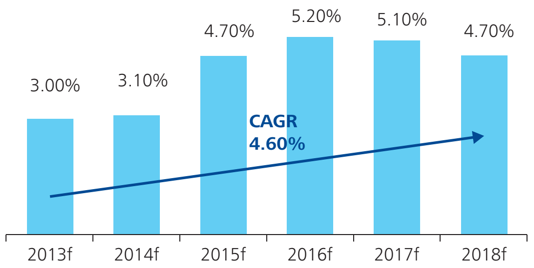
Market forecast of the building materials sector by segment

Key building materials used in the construction sector range largely from cement, concrete, glass, plastics to metal products such as steel. Aluminum is also a construction material that continues to gain traction as an alternative to steel and iron, given its favorable properties (light weight, strength, corrosion resistance, ease of recycling). The current and following sections will focus on the main building materials i.e. cement, steel, aluminum that largely influence the construction industry sector and their market size forecasts. Below is a snapshot of the global and regional market forecasts of cement, steel and aluminum that anticipates a bright market outlook in the long-term for construction materials.

Cement industry will be less vulnerable to the slowdown in the global economy

The global cement market is expected to grow at approximately 5% a year, despite a slowdown in Chinese construction. Emerging economies in Asia, particularly India and Indonesia, are expected to lead consumption of cement in the global market. The growth rates, however, will be at a lower rate than the 15-year growth spurt beginning in the late 90s, which was primarily driven by China. No significant real increases in global cement prices are anticipated between now and 2018.

Global consumption growth forecast (2013-18)



Source: Morgan Stanley, October 2014

Key highlights

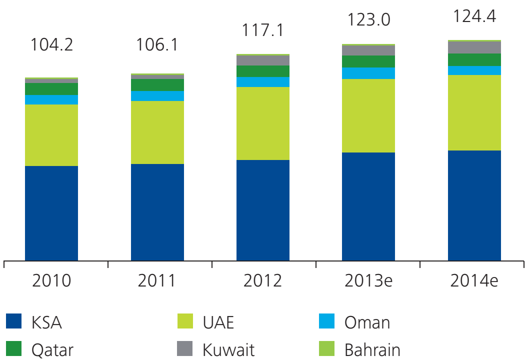
- Refractory cement, concretes and mortars are expected to constitute the largest growth markets up to 2017.
- Ready-mix concrete is expected to be the fastest growing segment of the cement and concrete market in 2015, with a projected market share of 27%.
- Blended cement is projected to account for over 70% of cement consumption, partly due to its lower cost and environmental friendliness.

The global cement market is expected to grow at approximately 5% a year, despite a slowdown in Chinese construction. Emerging economies in Asia, particularly India and Indonesia, are expected to lead consumption of cement in the global market.

Regional trends in the cement industry

Demand for cement remains stable in the MENA region due to major infrastructure investments underway.

GCC cement capacity by country (mtpa)



Source: Morgan Stanley, October 2014

Key highlights

- Cement capacity rose from 81.5mtpa in 2008 to 123mtpa by 2013
- GCC capacity is 30% of the MENA region and 3% of the world's total capacity
- KSA leads the GCC with a capacity of around 62mtpa (around 50% of the GCC) in 2013

KSA's multi-billion dollar infrastructure spending program is driving the bulk of demand in the GCC. KSA has the second largest market share, after the UAE, in the overall MENA cement industry.

KSA's multi-billion dollar infrastructure spending program is driving the bulk of demand in the GCC. KSA has the second largest market share, after the UAE, in the overall MENA cement industry. Demand has grown in Egypt as the economy is stabilizing and the GCC states are providing significant funds and grants for investment in Egypt. Algeria has launched a number of major housing and railway projects, which will also increase demand for concrete and cement.

Steady steel demand anticipated in medium- to long-term despite fears of economic slowdown

In 2015, global steel demand will grow slower (+2%) than the global GDP, as a result of the weakness in the emerging economies and China; however, Asia in particular South East Asia will continue to be the global center of steel production and consumption. Increased opportunities for the steel industry are expected in the US due to upturn in the construction sector.

Yet the biggest challenges facing the steel industry is the oversupply of steel in China and continued investments in the steel industry leading to record levels of excess capacity.

Regional trends in the steel industry

The region in 2014 remained one of the fastest growing in terms of steel production and consumption. Consumption of steel in the GCC has been driven by significant investments in the construction sectors of the UAE, KSA and Qatar. GCC finished steel consumption rose by 6.0% in 2014 and is forecast to further grow by 6.1% in 2015. The traditional steel production hubs in the region have been Iran and Egypt; however, the bulk of steel production activities has been gradually shifting to the GCC countries with Qatar and KSA experiencing the fastest production growth respectively 36% and 15%.

Despite the rise in production, the Middle East & Africa (MEA) region remains a net importer of steel (trade deficit of around 50 million tons in 2013). The steel exports from the MEA region represented less than 0.9% of the global volume of steel exports in 2013. Only 3% of the steel produced in the Middle East & Africa is exported within the Middle East: 41% is exported to Africa, 24% to Europe, and 12% to NAFTA. The Middle East imports the majority of its steel from Europe, including Turkey (34%), China (21%) and CIS (20%)[4].

The regional forecast for finished steel demand is favorable with steel consumption expected to grow by 3.8% between 2013 and 2018. MENA steel demand is expected to reach 50 Mt by 2020 driven by US$4.3 trillion worth of spending in reconstruction and infrastructure across the MENA region from 2015-20.

However, the medium- to long-term impact of the recent collapse in oil prices has yet to be determined as this could also affect the funding of the major infrastructure projects that are underway.

Main barriers to the growth of the GCC steel sector have been the drop in oil prices, market dumping by some overseas suppliers at much higher volumes than in 2013, which has affected GCC steel producers, increased use of aluminum as a substitute by end-user industries and the heavy reliance on imports due to limited capacity.

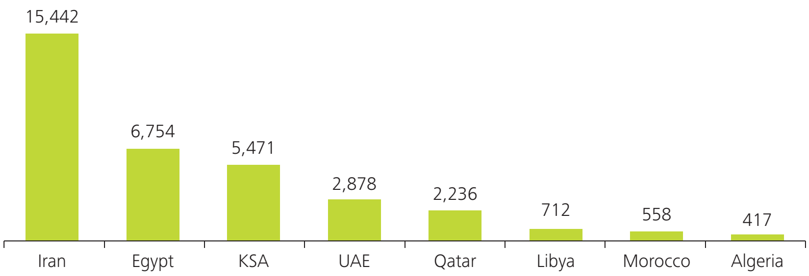
The global aluminum market will continue growing as both the transport and construction sectors are expected to further expand

The growing number of applications of aluminum in building and construction, transportation, packaging and other industries has increased the production of aluminum across the world. Global demand is expected to continue to grow, especially in emerging markets due to lower per capita consumption of aluminum in these regions. Further, legislation on CO2 emissions and caps may encourage the use of aluminum by supporting the demand for energy-efficient and light-weighting products, with beneficiaries in sectors such as transportation, power distribution and transmission, air conditioning, renewable energies and green buildings.

Aluminum industry in the GCC poised for strong growth and downstream activity

Aluminum produced in the GCC now accounts for 10% of global aluminum production, and this figure is set to increase to 15% by 2020, with the rise of aluminum application in building and construction.

Crude steel output in 2014 ('000 tonnes) and year-on-year growth



Source: World Steel Association

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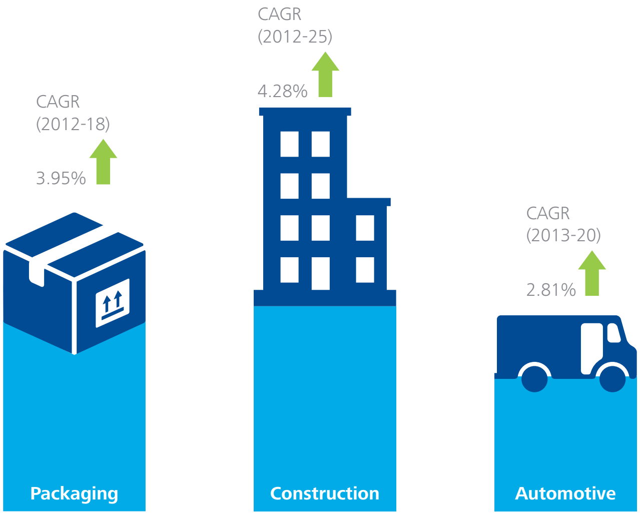
Forecasted growth of global aluminum consumption (2012-2018)



Source: LME, 2015, Bloomberg 2015, Oxford Economics 2015

Aluminum produced in the GCC now accounts for 10% of global aluminum production, and this figure is set to increase to 15% by 2020, with the rise of aluminum application in building and construction.

The investments in the aluminum sector across the Gulf region are also poised to hit US$55 billion by 2020, which include expansion of smelters and new projects in the region. Over the next years, aluminum smelters will increase their efforts to enhance efficiency of the production of existing plants and gain a larger share of the global market. The ability to cope with constant fluctuations in London Metal Exchange (LME) prices of aluminum, along with the appropriate optimization of the production processes, regular supply of feedstock, mainly bauxite, and pressing environmental issues would be the most significant challenges facing the GCC aluminum suppliers going forward.

All in all, global and regional market forecasts indicate a positive outlook in the long-term for the majority of the construction materials. As sustainability and green building regulations become increasingly a priority for the governments in the region, the demand for environmentally friendly and energy-efficient building materials such as aluminum, stone, marble and ceramics is expected to grow, offering significant opportunities to regional manufacturers.

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Endnotes

1. As per a recent MEED study, construction projects worth US$2.01 trillion, roughly two-thirds of the GCC's entire annual GDP, are currently planned and un-awarded in the GCC
2. Abu-Dhabi-building-materials-prices-decline-in-Feb, The Statistics Centre Abu Dhabi (SCAD)
3. New water and electricity tariffs structure for industries in Abu Dhabi, Jan 2015 - Source: Abu Dhabi Regulation and Supervision Bureau
4. Source: World Steel Association 2014

Virginie Clemancon
Senior Manager
Monitor Deloitte

As sustainability and green building regulations become increasingly a priority for the governments in the region, the demand for environmentally friendly and energy-efficient building materials such as aluminum, stone, marble and ceramics is expected to grow, offering significant opportunities to regional manufacturers.

Developing debt and capital markets for funding infrastructure projects

The Middle East is sometimes perceived as a market that is still in the early stages of its evolution in terms of financing large infrastructure projects, where typically public finance has been predominantly in use. Globally, infrastructure and project finance evolution has recently seen the return of project bonds, the growing importance of Export Credit Agencies (ECAs) and the emergence of infrastructure debt funds which act as platforms to channel infrastructure lending into pension funds and life insurance company asset books. How the Middle East markets will adopt these trends in the near term is key to financing its infrastructure projects in the wake of recent global oil price trends and the government's vision to make their assets self-funding if there is to be a focus on further developing debt and capital markets for Infrastructure finance in the region, the key question that ultimately prevails is whether the attention should be on financing innovation, or perhaps more on government appetite on the extent of need for private finance.

There is often talk in the market about the increasing need for private finance in the delivery of infrastructure projects. However, it is key to establish whether the need really exists at the procurer's level, and, if so, whether this need is driven by better utilization of public funds, or a need to drive better Value-for-Money (VfM) solutions.

If one were to look at it from a VfM perspective, the use of private sector based finance not only provides alternate funding options but also brings in efficiencies of scale and best practices of the industry while facilitating an optimum risk allocation between the public and private sectors, especially if one properly takes into account the time value of money and lifecycle costing. This can be allied to a vision or a strategy by governments to create assets that become self-funded and can be measured based on predetermined Key Performance Indicators (KPIs), to drive a more corporate approach to managing these otherwise public assets.

The key sectors to have typically seen private financing play a large role in the Middle East have been the power and utility sectors.

Once the need for private capital is established, one would need to further explore two layers of further challenge, namely, the extent to which projects and programs would be packaged in a form that is conducive and appropriate for private finance, and deploying the most appropriate and efficient financing model.

The state of the current market and how best to package projects for private capital deployment

In the Middle East, the use of private finance is seldom seen in key emerging sectors like social infrastructure and transport driven by a traditional view that it is the government's responsibility to provide the funding for these sectors. The key sectors to have typically seen private financing play a large role in the Middle East have been the power and utility sectors. The procurement of independent power and/or water projects (IPPs, IWPs and IWPPs), in Oman, UAE, Qatar and KSA markets where the private sector and finance have had a material role to play are examples of its success in the sector.

What these power and water project structures have offered the private sector is a platform that does not transfer too much risk that are normally seen on transactions in more developed markets with strong regulatory frameworks.

Typical types of models that have been used to generate best value through optimal risk transfer include: build operate transfer (BOT), build own operate (BOO), build own operate transfer (BOOT), design, build, finance and operate (DBFO), design, build, finance and maintain (DBFM) models or concession arrangements. However, it is to be noted that risk allocation between key stakeholders is key to the success of such arrangements.

Apart from the risk transfer issue, at times, another factor that is seen to prevent private involvement in public assets is a concern about control over strategic or sensitive public assets to the private sector. Whilst these are very valid concerns, retaining ownership public assets can be structured into appropriate models while only giving the private sector the benefit of certain revenue streams. Another example would be to use private sector for building, financing and maintaining hard infrastructure assets (e.g. public schools) while not being made responsible for the provision of the underlying services (i.e. governments would still be responsible for providing faculty and curriculum for the school's operation).

Private finance deployment and developing the markets through innovation

Observing trends in the Middle East and more developed markets, it is apparent that project finance is one of the most commonly used methods for channeling private finance into projects. It is hence worth considering some of the key characteristics and trends of the project finance market.

Project finance market: characteristics and trends

Since the onset of the global financial crisis, many banks in the Middle East that were previously able to lend to project finance structures on a long-tenor basis (10-40 years) have ceased to have the appetite or ability to do so apart from lending to traditional projects in the power and water sectors over the last few years where the majority of projects still continue to be financed on a relatively long term basis (typically 20+ years).

It is therefore interesting to observe that financiers providing project finance in the region include a full spectrum of players from conventional commercial and Islamic banks to multilateral agencies and Export Credit Agencies (ECAs).

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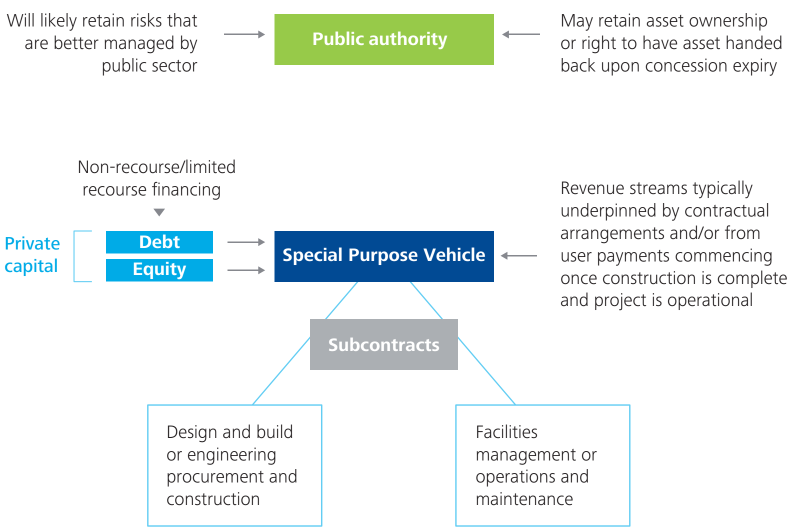
Typical project finance arrangement



The market is starting to develop solutions to deal with longer-tenor financing challenges, as well as solutions to deal with the more general challenge of lack of depth in the bank debt market.

The market is starting to develop solutions to deal with longer-tenor financing challenges, as well as solutions to deal with the more general challenge of lack of depth in the bank debt market. These solutions include:

- Development of mini-perm solutions (soft and/or hard bullet), which can help facilitate capital markets access and better economics to infrastructure projects
- Development of other capital market solutions to include construction financing/bridge to bond solutions and additional methods to channel institutional capital into projects (including debt funds, agency models and direct investment/lending units in institutions).
- Diversification in sources of financing to include ECAs, Islamic Finance providers, government grants/guarantees and multilaterals.

Take the case of mini-perm solutions, which is one emerging development of financing solution in the Middle East. Short-term or hybrid structures are commonly seen in project finance markets generally, with a hard or soft bullet repayment assumed (often known as hard or soft mini-perms). These loans typically come with a repayment requirement of 5-10 years, with repayment assumed to come primarily from the proceeds of a refinancing exercise. Such structures have been used in the past when the market has struggled to provide longer-tenor debt options, but can also be used to increase competition, broaden the available pools of capital and achieve improved pricing.

However, some of the challenges with short-term structures include:

- Short term structures expect refinancing ahead of the expected expiry date
- Hard mini-perms involve an event of default in the credit agreement at expiry
- Soft mini-perms rely on less harsh, albeit still significant, measures, such as free cash lock-ups, cash-sweeps and/or margin ratchets
- Where short-term debt is deployed, the issue of refinancing risk is raised. This refers to the risk of increased financing costs compared to what is assumed at the onset of a project
- Lenders and sponsors alike may have strong views as where the refinancing risk would lie which would in turn affect the project's bankability or invest ability
- Some opinions in the market consider the public sector to bear part or all of the risk of increased financing costs as a result of refinancing. However, the competitive state of the market (driven by limited project finance opportunities) would in all likelihood drive the market to accept this risk on the private sector side.

The emergence of ECAs as an increasingly prevalent feature of the project finance market is a key development that has provided an added attractiveness to a private sector players' proposition while financing projects. It may not be accurate to refer to ECA financing as 'private finance' per se, given they are ultimately backed by their respective host governments, but nonetheless they are a critical source of finance for infrastructure.

The nature of the purpose of ECAs allows them to offer terms and conditions not otherwise available in the debt market. Their ability to provide long-tenors and bolster financing capacity in the market helps make them an attractive option.

ECAs have been a key source of funding in the recent past, in particular for those agencies capable of providing direct lending. Since 2009, most mega-project financed deals in the region have had ECA involvement. Some Asian ECAs, as a particular example, have demonstrated a strong capability to fill the gap in lending. However, it is worth mentioning that the due diligence credit approval process for ECA based financing is seen to be more rigorous and time consuming than what is seen with normal commercial banks.

Another material source of finance is that of International Financial Institutions (IFIs) or multilateral development banks, particularly in the non-GCC Middle East countries. IFIs have the ability to provide finance on terms better than the commercial market and typically get involved in supporting/ financing projects when there is a gap in availability of lending from commercial lenders on projects that are seen to be key to a country's economic development in addition to some of the social benefits arising from the project. For politically and economically challenged countries such as Egypt and Iraq, IFIs will continue to play an important role in the funding of key infrastructure assets. The criticality of these institutions is demonstrated by the roles that the International Finance Corporation (IFC) and European Bank for Reconstruction and Development (EBRD) played in the recent market successes within the Jordanian renewable renewable energy space (with wind and solar projects being closed).

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Any assessment of a Middle East financing market would not be complete without consideration of Islamic/Sharia'-compliant financing as a potential source of capital. Some notable examples of recent Islamic financing in the Middle East include the 2014 Queen Alia airport restructuring/refinancing in Jordan, the Ras Abu Fontas A2 desalination project in Qatar and the recent Medina airport Public Private Partnership (PPP) in KSA. Whilst this form of finance has seen an increasing interest in most Middle East countries and with certain project sponsors, there still remains a question on its ability to open any incremental pools of capital. Most institutions participating in the Islamic market face the same constraints on their balance sheets and lending as with commercial lending markets. Therefore, although Islamic funding may provide additional tranches of debt, to some extent, it may be seen to replace partly, rather than be in addition to, conventional commercial debt.

A key area to consider when contemplating how the financing markets may evolve and progress to facilitate infrastructure development is the use of capital markets, and more specifically the notion of project bonds.

A key area to consider when contemplating how the financing markets may evolve and progress to facilitate infrastructure development is the use of capital markets, and more specifically the notion of project bonds. Bonds are long-term debt securities generally purchased by institutional investors through public markets, although the private placement of bonds is gaining popularity.

Institutional investors who are the typical buyers of such capital market products, require a high level of confidence in a project and its sponsors in addition to strong contractual arrangements, and country specific confidence. These investors are usually risk-averse, preferring projects with independent credit ratings. Whilst project bonds have been used to finance infrastructure projects globally, and have certainly been more prevalent in the pre-2007 markets, it has only recently begun to re-emerge. However, given the reluctance of investors to bear construction risk and the cumbersome decision making process involved in votes of bond holders, its use in financing projects pre-construction would remain a challenge and hence is unlikely to be used to provide funds during the construction period of projects in the Middle East.

However, bonds would offer a viable option for refinancing operational projects and this can free up market liquidity for future project financing.

Beyond capital markets, the more developed regions (e.g. the UK, Canada and Europe) have seen the rise of a number of infrastructure-focused debt funds in the last few years. These funds seek to compete with and take the place of commercial banks in the provision of infrastructure and project finance debt, particularly on projects in developed markets. Such debt fund platforms exist within many of the large life insurance and pension fund institutions, as a vehicle to use project finance debt as an asset to service their long-term, annuity style liabilities (e.g. pension payment obligations).

Whilst infrastructure debt funds have not become prevalent in the region yet, there have been instances of infrastructure equity funds exploring the Middle East market in anticipation of opportunities. However, these funds have found it difficult to add value as part of consortia bidding for primary projects where they are not the only parties able to provide equity. Additionally, while such equity funds have explored opportunities to buy assets in the secondary market, competition with sovereign/quasi-sovereign entities (e.g. sovereign wealth funds), who are able to offer a higher price, driven by political and/or strategic considerations have not provided an attractiveness to these funds.

Conclusion

With the above factors as a backdrop to considering how debt and capital markets may be developed for infrastructure projects in the Middle East, it is encouraging to note that there is a good degree of innovation and potential for further efficiencies and positive movement. However, to see the sort of innovation that might bring a step-change, one would need to consider whether sufficient drivers and incentives exist to bring about this change. Currently, the pipeline of projects expected to come to market in a form that expects private finance is an unknown quantum, over which current market participants speculate. The real challenge for governments would be to structure such projects into a form that is primed for debt and capital markets to unlock material financing innovations. There is certainly a sentiment in the debt and capital market that a real incentive exists to unlock funding conundrums and enable the anticipated projects to commence and move towards the region's diversification goals.

Source
IJ Global

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Towards a project delivery focus
FIDIC in the Middle East

Introduction
Since the release of the Fédération Internationale des Ingénieurs-Conseils (FIDIC) rainbow suite in 1999, procurers of major infrastructure in many jurisdictions have increasingly focused on effective project delivery in construction contracts in order to facilitate an optimal result for project outcome.

Such an approach focuses on identifying and dealing with project risk early on and working together to mitigate or eliminate those risks before they have a material impact on the project. It also requires a collaborative approach which mitigates or reduces the prospect of claims and avoids entrenched disputes at or towards the end of the project, which, by themselves, can threaten successful project delivery.

The New Engineering Contract 3 (NEC3) perhaps typifies this approach and has been used in jurisdictions such as the UK and Hong Kong to deliver major infrastructure programs such as the London 2012 Olympics. Indeed, it has been mandated by the UK government that all projects are delivered using this form of contract. However, it has not been taken up in the Middle East to any significant degree, with FIDIC remaining the preferred form of contract for major infrastructure projects.

Given the scale of major infrastructure planned for the Middle East over the next few years and the fact that projects such as Dubai Expo 2020 and the Qatar 2022 World Cup having firm immovable deadlines, one might reasonably expect procurers in the region to move towards a project delivery focus based on the success of this model in other jurisdictions.

Within this context, this article looks at the successes of NEC3 in the UK in terms of project delivery, which argues in favor of a project delivery focus in the Middle East, before moving on to exploring the extent to which FIDIC contracts already embody a project delivery approach and the potential barriers to this in the Middle East.

By adopting a project delivery focus, procurers, and hitherto clients, can be assured that there are tangible outcomes linked to specific contract clauses.

The benefits of project delivery focus: some observations from the UK

By adopting a project delivery focus, procurers, and hitherto clients, can be assured that there are tangible outcomes linked to specific contract clauses.

By way of example, NEC3 has specific 'early warning' provisions which place the onus of responsibility on the contractor to respond within pre-determined timescales (14 days) to fully quantify and offer a solution for a Variation Order. This is issued as a contract instruction, and upon acceptance, the instruction then becomes a compensation event which has already agreed upon rates, and embedded design and time impact considerations.

The rigid adherence to this process does not obviate delay nor claims for additional monies per se, but were contractors across the Middle East to follow the NEC3 model, you could reasonably foresee projects with significantly less ambiguity around change, the accuracy of pricing of those changes, and the apportionment of responsibility for the same.

Project delivery focus under FIDIC

There are a number of aspects of the FIDIC 1999 contracts which can legitimately be said to promote project delivery in terms of early identification of risk, collaboration and effective project management.

By way of example, clause 4.21 deals with progress reporting and requires the contractor to identify on a monthly basis, variations, employer and contractor claims, as well as 'comparisons of actual and planned progress with details of any events or circumstances which may jeopardize the completion in accordance with the contract, and the measures being (or to be) adopted to overcome delays.'

Similarly, clause 8.3 which deals with programming, provides that 'the contractor shall promptly give notice to the engineer of specific probable future events or circumstances which may adversely affect the works, increase the contract price, or delay the execution of the works.' It also requires the contractor to 'submit a revised program whenever the previous program is inconsistent with actual progress.'

Clause 20.1 which deals with the notification of claims for additional time and money, also provides for the giving of notice within a period of 28 days after the contractor became aware, or should have become aware, of the event or circumstance giving rise to the claim.

These provisions are all directed to the prompt notification of events or circumstances which might adversely impact upon the delivery of the project so that the parties are able to identify and address project risk. There is, however, no express obligation on the parties to proactively meet and resolve issues notified under these provisions, unlike the early warning provisions contained in the NEC3 contract.

That said, the FIDIC conditions do encourage a degree of interaction and collaboration in relation to project risk and potential claims through the engineer and in particular his administration of the determination procedure. The engineer is required to make determinations in relation to a wide range of matters including claims under clause 20.1, the value of instructed variations (clause 13), the contractor's entitlement to interim payments (clause 14.6) and extensions of time (clause 8.4).

In producing determinations under clause 3.5, the engineer has a positive obligation to first consult with each of the parties in order to endeavor to reach agreement. It is only when an agreement cannot be reached that the engineer must produce a 'fair determination' on the matter. The procedure therefore envisages and requires a dialogue between the parties and the engineer to explore the extent to which agreement can be reached. This again encourages collaboration in relation to issues affecting the project and is consistent with a project delivery focus, provided of course that all parties properly engage with that process.

Areas for potential development

Whilst the FIDIC 1999 suite of contracts do promote effective project delivery, there are areas where this could be strengthened.

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It is understood that FIDIC is currently in the process of updating the rainbow suite and we have identified below some areas for consideration in terms of encouraging a project delivery focus in the new FIDIC contracts.

Early warning procedure

The early warning procedure is a concept which appears in NEC3 but which is also a common type of 'project delivery' structure. It requires the contractor and the project manager/employer's representative to both notify the other as soon as they become aware of anything that could increase the total cost or delay the completion date or impair the performance of the finished works.

This is a notification obligation for the sake of sharing information, rather than a prerequisite to claiming or a time-barring procedure. The parties then engage in an 'early warning meeting' to cooperate and discuss how the problem can be avoided or reduced. Notified events are then entered onto a 'risk register' which identifies the risk, the likelihood of it occurring, the potential consequences, the anticipated date of its occurrence and expiry (if known) and the actions that can reasonably be taken to reduce or minimize the risk.

Another area that might be strengthened is the program control and sequencing in terms of requiring the parties to proactively manage the contractor's program, with the contractor being encouraged to request or propose adjustments to issues outside of its control which may assist the contractor in delivering the works.

In the NEC3 approach, typically, the contractor's entitlement to relief, if it fails to discharge the 'early warning' obligation, is limited to that which he would have been entitled if early warning had been provided - that is, if there was a more efficient way to manage or avoid the dispute which could have been implemented by either party on the basis of an 'early warning' the contractor will be limited to that relief. There is, therefore, both a positive motivation and a type of punishment for not engaging in the early warning process.

Proactive program control

Another area that might be strengthened is the program control and sequencing in terms of requiring the parties to proactively manage the contractor's program, with the contractor being encouraged to request or propose adjustments to issues outside of its control which may assist the contractor in delivering the works.

For example, if the contractor considers that a new work space could be opened up or issued to him, he will recommend this. Alternatively, if the employer or engineer considers that the contractor should re-sequence to enable another trade to work efficiently in one space, then this is a matter that will be discussed and agreed upon.

Claims procedure

The claims procedure under clause 20.1, and in particular the time bar if notice is not given within time, have been subject to much debate.

The purpose of the claims notification provision in clause 20.1 is to ensure that the employer is aware of potential claims as soon as possible so that these can be evaluated and the cost or time effects mitigated. If the employer is not aware of the effects of the claim (or not made aware until much later) then he loses the opportunity to do this.

In the event that the contractor fails to give notice within 28 days, the consequences are drastic: 'The time for completion shall not be extended, the contractor shall not be entitled to additional payment, and the employer shall be discharged from all liability in connection with the claim.'

Whilst this undoubtedly provides the proverbial 'stick' for the contractor to get his notices in on time, it also has the potential to give rise to entrenched disputes, particularly where the time or money consequences are such that the contractor simply cannot afford to let the claim go.

In such circumstances, the risk is that the engineer does not proceed to determine the claim - including the important process of consultation between the employer and the contractor to try to see if agreement can be reached - and the claim is rejected out-of-hand on the basis of non-compliance with the notice. The only steps available to the contractor in those circumstances are to then escalate the matter to the Dispute Adjudication Board (DAB) and finally, to arbitration.

It is submitted that this outcome is not in the interests of either party where there is a valid basis for the claim and the late notification has not prejudiced the employer in terms of him being able to take action to mitigate or avoid the claim. An alternative approach would be to provide for some discretion on the part of the engineer (or DAB) to allow the claim where the failure to give notice in a timely manner has not and could not prejudice the claim such that the substance of the claim can be addressed.

In this regard, it is to be noted that the FIDIC Gold Book, which was released in 2010, goes some way to achieving this by providing that the DAB may consider claims which have not strictly complied with the notice provisions, provided that there is a valid and justifiable reason why the claim was not submitted within time.

If this approach were to be rolled out across the other FIDIC contracts, then this would potentially minimize the potential for entrenched disputes and encourage the parties to engage in relation to the substance of potential claims and how the consequences might best be mitigated on a best-for-project basis.

Potential barriers to effective project delivery in the Middle East

There remains historic and deeply entrenched barriers to project delivery across the region. The resistance to other forms of contract has been one such issue, but the operating practices of some clients, and indeed contractors, have been prejudicial to collaborative, transparent and ultimately successful delivery.

Within the context of the use of FIDIC in the region, one issue in particular is the extent to which the discharge of the engineer's duties is fettered by the requirement to obtain prior approval from the client, which can undermine the engineer's ability to properly administer the contract, and which in turn can prohibit the parties identifying and dealing with issues early on, and can also lead to entrenched positions and, ultimately, disputes.

Clause 3.1 of the FIDIC 1999 standard form contracts deals with the engineer's duties and authority, and provides that 'the engineer may exercise the authority attributable to the engineer as specified in or necessarily to be implied from the contract.' However, the clause also goes on to state that "if the engineer is required to obtain the approval of the employer before exercising a specified authority, the requirements shall be as stated in the particular conditions.'

It is relatively common for clients in the region to use the particular conditions expansively to require prior approval in relation to the discharge of the engineer's duties, including the issuance of determinations as to extensions of time, variations, cost claims and other claims falling under clause 20.1.

As set out above, the determination process is a key aspect of the FIDIC regime and one that encourages the parties to collaborate in relation to issues affecting project delivery, with the engineer ultimately producing a 'fair' determination in the event that the parties are unable to reach agreement. If, however, the engineer is required to obtain the prior consent of the client before issuing that determination, then it is at least questionable as to whether it would have been reached fairly, particularly where there is no transparency as to what has passed between the client and the engineer prior to the issuance of the determination.

The determination process is a key aspect of the FIDIC regime and one that encourages the parties to collaborate in relation to issues affecting project delivery, with the engineer ultimately producing a 'fair' determination in the event that the parties are unable to reach agreement.

Where the engineer's ability to produce a fair determination is perceived by the contractor as being fettered by the process of prior approval required by the client, then this is likely to give rise to more formal disputes under clause 20, which distracts the parties' efforts from successful project delivery towards a more adversarial and claims-driven environment which is not in the best interest of the project.

The issue is compounded by the fact that, in the Middle East, the DAB procedure written into clause 20 of the FIDIC 1999 suite is often deleted and replaced by an engineer's decision process akin to that provided for under the FIDIC 1987 form. This effectively requires the engineer to provide a 'decision' in relation to disputes in circumstances where a determination has already been issued in respect of a claim for additional time or money.

The difficulty with that procedure (and presumably one of the drivers for the introduction of the DAB process) is that the engineer that has already produced an unsatisfactory determination is unlikely to produce a decision contrary to its early determination of the same issue. Thus the parties can very quickly find themselves on the brink of an arbitration during the course of a live project, which can be both damaging to the parties' relationship and to the delivery of the project.

It follows that even on the basis of the existing FIDIC 1999 suite, the engineers' ability to discharge their duties fairly (and to a certain degree impartially) is particularly important in terms of ensuring the administration of the contract in a manner which promotes proactive and collaborative project management and avoids entrenched disputes.

This is an area which could be improved in the Middle East by relaxing the areas where clients' prior approval is required for the discharge of the engineer's duties, and in particular in relation to the determination of entitlements to additional time and money in order to avoid entrenched disputes.

Concluding thoughts

It is undoubtedly the case that there is a shift towards a project delivery focus in many jurisdictions, as is evident from the development of standard forms such as the NEC3 and the widely publicized successes of high profile projects such as the London 2012 Olympics, which have benefited from this approach.

The FIDIC 1999 suite undoubtedly contains provisions which are consistent with a project delivery focus, although there are some areas where this could be strengthened, particularly around issues such as the early warning procedure, and more prescriptive project management tools to aid the early identification and resolution of matters which threaten successful project delivery.

Whilst the FIDIC suite is and remains the contract of choice for many procurers in the Middle East, it is not uncommon for the risk allocation provided for in these forms to be heavily amended to ensure wholesale transfer of risk to the contractor and to ensure that the client retains maximum control over the project, through, for example, the requirement for wide-ranging approvals prior to the engineer discharging their duties under the contract.

Such an approach risks running contrary to a project delivery focus and instead may encourage an adversarial environment that increases the risk of lengthy formal disputes arising, and which ultimately fail to be determined by arbitration, particularly where there is no intervening DAB procedure in place.

Given that there are time-critical projects of international importance in the horizon, such as Dubai Expo 2020 and the Qatar World Cup 2022, now is perhaps the time for the region to re-evaluate its approach to the procurement and administration of major infrastructure projects, and to move towards a project delivery focus whether through the use of the FIDIC suite and the forthcoming updates thereto, or through the use of other standard forms such as the NEC3.

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