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# Foreword

The abrupt end to the deceptively sustainable period of rapid growth, which characterised much of the early 2000s, raised all the flags for an impending cataclysm. Global financial household names such as the Lehman Brothers tumbled, whilst others, e.g. Merrill Lynch and AIG, stood on the brink of terminal collapse. As global real estate markets braced for the aftershocks, experiencing sharp falls in capital value and developing more stringent financial restrictions, a more promising reaction simultaneously took place; heralding a much-needed period of institutional restructuring and organisational correction.

Today, whilst most of the GCC’s real estate markets have enjoyed a period of growth, certain markets, particularly Dubai’s, are carefully monitoring new developments and charting the re-emergence of market activity. Notably, the more stringent lending criteria and greater focus on cost control and deliverability have shepherded developers into taking a more demand-led approach with a distinct focus on quality and functionality.



Clearly lower oil prices and diminished market sentiment have had their impact on this, but construction activity remains a key economic barometer in the region.

This report analyses the construction and real estate development markets across a range of sectors, together with the supply and demand dynamics, the commodity prices and how fluctuation in these commodities might affect development in overall terms.

## Glossary

ADR	Average Daily Rate
Bn	Billion
CAGR	Compound Annual Growth Rate
Capex	Capital expenditure
DEWA	Dubai Electricity & Water Authority
DLD	Dubai Land Department
DTCM	Dubai Tourism & Commerce Marketing
GCC	Gulf Cooperation Council
GLA	Gross Leasable Area
IPP	Independent Power Producer
RevPAR	Revenue Per Available Room
TEU	Twenty-foot Equivalent Unit
Tn	Trillion
USD	US Dollars (\$)
YTD	Year To Date

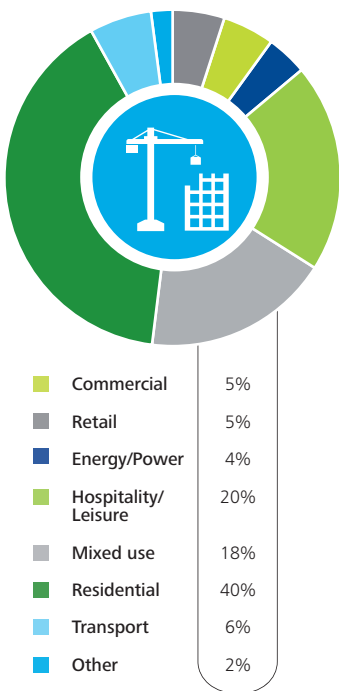
# Executive summary

Indeed latest data suggests that Dubai continues to develop in spite of economic and political uncertainty. In Q1 2106, more than USD3 Bn worth of projects have been awarded, featuring high end luxury hotels, commercial, retail and other mixed-use developments such as Dubai Creek Harbour. According to MEED Projects, Dubai will award USD36.5 Bn worth of projects this year which is only a 3% fall since 2015. Such statistics can only be constructed as encouraging, and a clear sign of a more mature diversified economy.

In overall terms, the quantum (USD) of live projects across Dubai, as dated October 11, 2015, per industry

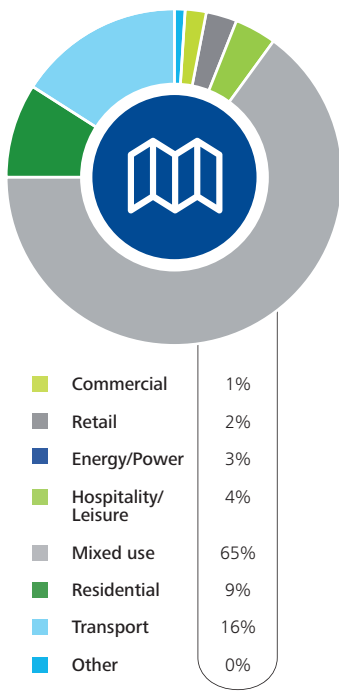
segment can be seen in the chart below:  
MEED Projects estimates that as of November 2015, there was USD2.6 Trillion of projects either planned or underway across the GCC, out of which USD1.6 Trillion related to construction projects. This is clear evidence that expenditure on major capital projects across the region has returned. The trend is displayed in the chart below which demonstrates the quantum of projects that are in the planning stage across the Emirate of Dubai.

Value of projects in execution stage in Dubai (USD53.6 Bn)



Source: MEED Projects, 2015

Value of projects in planning stage in Dubai (USD337.2 Bn)



Source: MEED Projects, 2015

## Previously stalled projects have been resurrected, but new project awards have reduced since 2014-2015 as a result of regional economic uncertainty

As can be seen from the two preceding charts, the construction market in Dubai is clearly still active across a broad mix of sectors. In overall terms, the total value of projects under construction in Dubai equates to USD53.6 Bn, with a further USD337.2 Bn in the planning stage. These are significant amounts of investment in most mature economies, but for an

emerging market such as Dubai, they are extraordinary figures and provide further evidence of Dubai's ambition to diversify its economy away from oil-centered revenues.

What has also been stark is the re-commencement of previously stalled projects across a number of sectors, notably major mixed-use schemes, retail and residential – further underpinning the longer term confidence within the market irrespective of softening oil prices and recent economic uncertainty across Asia.

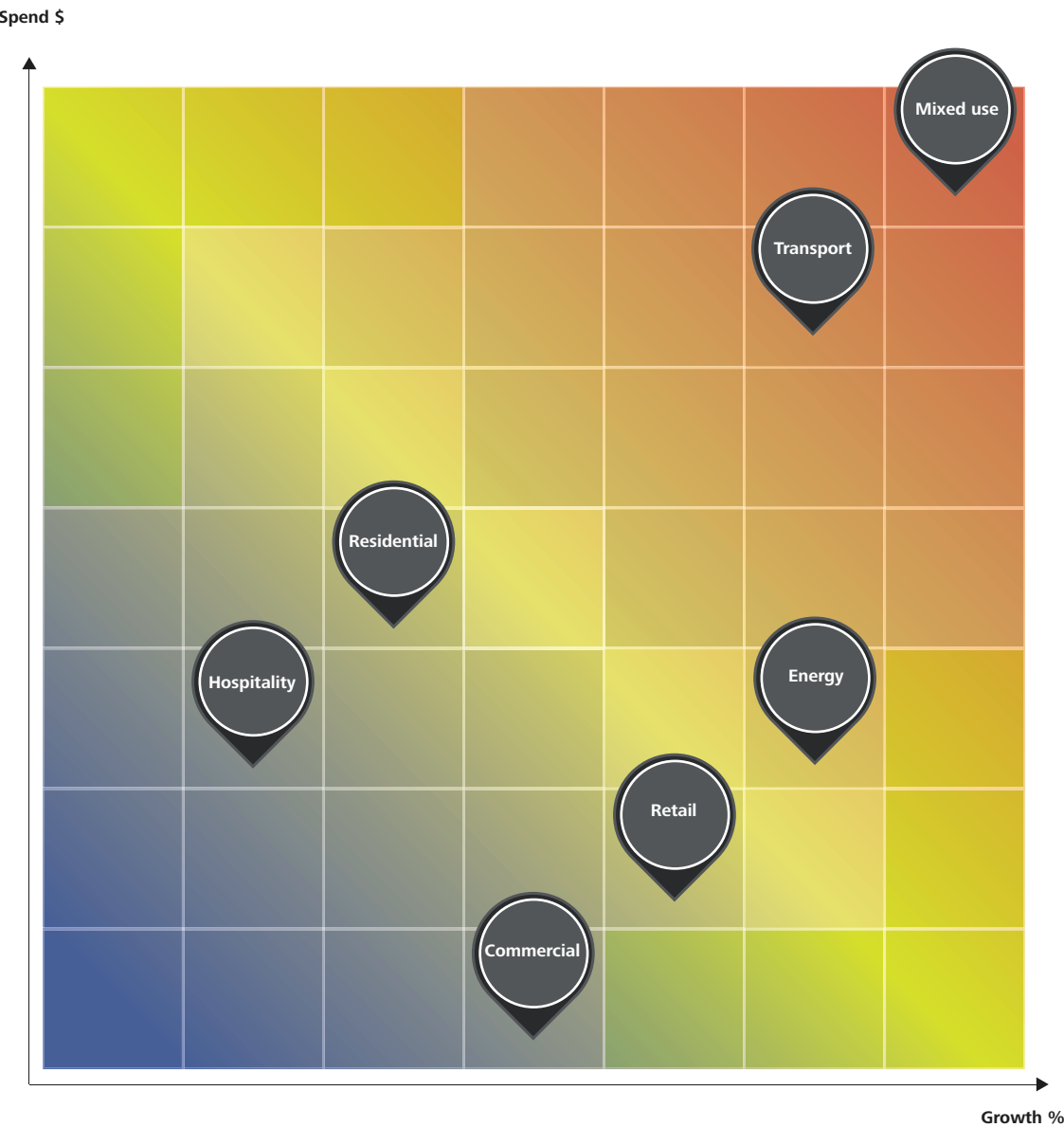
With Expo 2020 secured, certain sectors are displaying growth in response to the expected visitor numbers and subsequent development that will become a by-product of the event. The table below provides a summary of the current spend for projects under execution:

Sector	Current spend (USD)	Expected pipeline spend (USD)	Expected pipeline current spend (Based on MEED Projects since 2014)
Residential	21.3 Bn	30.1 Bn	▲
Leisure/Hotel	10.6 Bn	13.5 Bn	▲
Retail	2.6 Bn	6.1 Bn	▲
Commercial	2.9 Bn	4.4 Bn	▲
Mixed use	9.9 Bn	218.7 Bn	▲
Transport	3.2 Bn	53.8 Bn	▲
Energy/Power	2.0 Bn	10.3 Bn	▲
Others	1.0 Bn	0.3 Bn	▼
<b>Total</b>	<b>53.6 Bn</b>	<b>337.2 Bn</b>	

Source: MEED Projects, 2015

# Heat map

Below is a sector specific heat map which characterises the Dubai construction market. The basis for this heat map is underpinned by project awards, combined with project values.



Source: MEED Projects, 2015

# Current real estate market predictions



## Economy

- Economic growth in Dubai is likely to outperform the UAE GDP growth forecast of 3.6% per annum between 2015 and 2019, largely due to the fact that its economy is considerably less dependent on oil revenue compared to other Emirates (EIU)
- Lenders will continue to carefully scrutinize their real estate exposure, particularly for speculative development
- Any lifting of sanctions on Iran presents potential opportunities for Dubai in 2016

## Residential

- Published pipeline forecasts estimate that up to 40,000 residential units will get delivered in 2016, however, consultations with key developers suggest that a more realistic number will be approximately 10,000 units
- 2015 saw average residential sales prices across Dubai decline by approximately 10% and we predict that prices will decrease further in 2016 reflecting a transition to a more mature market
- Whilst there may be a softening in residential rental prices in some submarkets, we do not anticipate this will be to the degree of recent declines in residential sales prices

## Hospitality

- Occupancy levels at around 70% to 75% are likely to represent the "new norm" in Dubai's hospitality market in 2016, compared to 79% in 2014, largely due to new supply being delivered
- Serviced apartments are likely to attract greater attention in 2016, driven by key source market trends, growing visitor demand for longer average lengths of stay and better value accommodation
- With plans to increase capacity at DWC and DXB Airports to reach a combined capacity of approximately 97 million passengers in 2016, we foresee opportunities to capitalize on hospitality demand from transit and destination visitor growth and by promoting extended stay-overs in the Emirate

## Retail

- Retail rental growth in Dubai will be relatively flat in 2016, with the exception of super prime malls, which we predict will continue to experience strong demand as they benefit from both tourist and resident spending
- In light of planned new retail supply, offering retailers more choice, we predict that landlords of some secondary malls will need to incentivise the major retail groups to retain certain brands
- Prospects for the food and beverage retail sector are good driven by greater brand penetration, whilst the completion of D3 Design District, which has attracted a number of high profile brands and fashion houses to Dubai, may provide a boost to fashion retail in the Emirate

## Office

- With a number of quality office schemes in prime areas of undersupply due for completion in 2016, we predict that rental growth will slow in some submarkets
- We predict a trend towards more mixed use office developments and a greater allocation of space to amenities
- We foresee opportunities for investors and property managers to utilise data analytics and real time information to optimise lease management



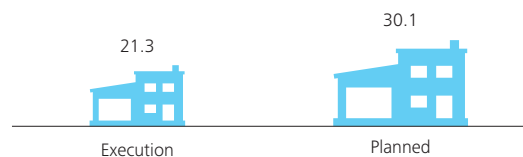


# Sector specific analysis

## Residential sector

The total quantum of current or planned development within the residential sector is estimated to be USD51.4 Bn – this is categorised by projects either in the execution stage or the planning stage, as depicted below:

### Residential sector – Dubai



USD (Billion)

Source: MEED Projects, 2015

Out of the total value of residential projects in the planning stage (USD30.1 Bn), apartments account for 56% while houses and villas account for 44%.

The Dubai Creek Residences cluster comprises six towers with the Dubai Creek Harbour at The Lagoons housing 3,664 office units, eight million square feet of retail space, 39,000 residential units and 22 hotels with 4,400 rooms, while the centerpiece will be the 'Dubai Twin Towers' that will be the tallest twin towers in the world.

Estimated project value is c. --65 Bn = USD17.6 Bn

The second largest project is the USD2.9 Bn MBR City - District One, which is an equally-split joint venture between Meydan Group and Sobha Developers

(Meydan Sobha FZ LLC / Meydan Sobha JV), which includes the development of city parkland, waterways, woodlands and open spaces covering 2.4 million sq m. Construction can be clearly seen from Al Khail Road with progress visually apparent on an almost daily basis.

 **USD4.8 Bn**  
Meydan Group

 **USD4.7 Bn**  
Nakheel

 **USD4.3 Bn**  
Damac Properties

 **USD2.6 Bn**  
Private Developers

 **USD2.6 Bn**  
Emaar Properties

 **USD1.6 Bn**  
Meraas Holdings

### Demand drivers

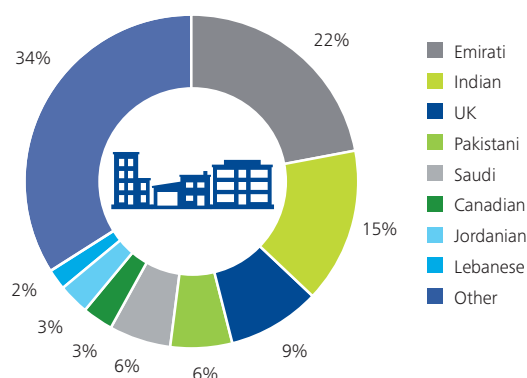
Data from the Dubai Land Department ("DLD") shows that the value of real estate transactions in Dubai in H1 2015 were in excess of AED53 Bn, completed by over 19,000 investors.

Residential transactions across Dubai during the period between January and July 2014, compared to the same period in 2015 is up by approximately 1%, though it is expected to decline further in 2016

A number of residential transactions in Dubai have been driven by international investors, as opposed to domestic and international primary end-users. International investors in Dubai have also been seeking higher returns in less established residential areas of the

emirate and this is reflected in the sales price performance of Dubai's residential sub-markets, which saw an average increase of 54% in the apartment sub-market<sup>1</sup> and 32% in the villa sub-market<sup>2</sup> between H1 2012 and H1 2015.

#### Range of real estate investments' nationalities



Source: Dubai Land Department, 2015

#### Current and planned supply of residential stock

By the end of 2015, the total residential stock in Dubai was estimated at approximately 380,000 units. Between H2 2015 and H2 2020, it is estimated that an additional 104,733 units or 28% will be added to the market (approx. 19,000 per annum), defined by a mix of villas and apartments across all price points.

#### Falling build costs

According to the latest Construction Market Intelligence

report by Rider Levett Bucknall (2015), there was an overall decrease of -7.6% in the average construction cost per square metre of gross floor area for a typical residential multi-storey building. Cost dropped from AED5,950/sq m in Q1 2011 to AED5,500/sq m in Q1 2015; with no change in the year from Q1 2014 to Q1 2015.

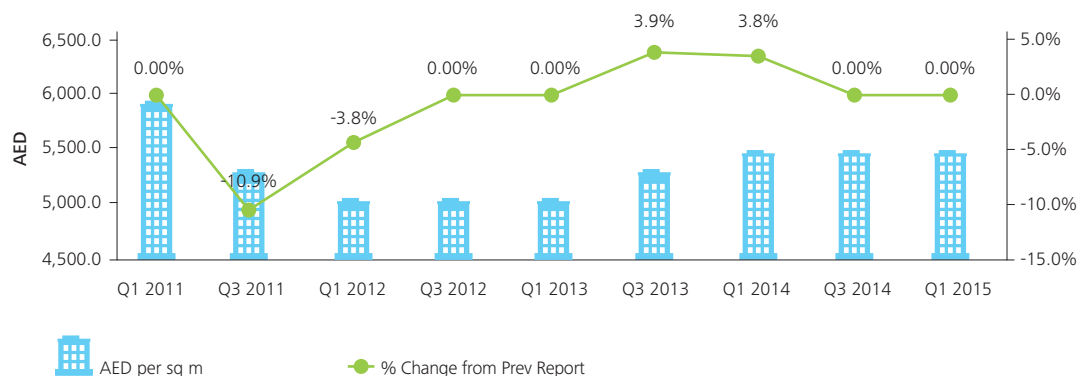
#### Commodity price movements

Many might wonder whether variances in building costs were driven by commodity prices. For example, the average cost to construct a multi-storey residential building of 10,000 sq m gross floor area including a basement car park, would have cost in the region of AED68 M in Q1 2011, compared to approx. AED66.5 M in Q1 2015. AED66.5 M, an overall reduction of 2.9%. This underlines a decline in the cost index for raw materials has fallen across the period, essentially making residential units cheaper to build. The fall in raw materials does not conform with statements made regarding other sectors, ie commodity prices showed 3.7% increase, while it is reported here that there was a decrease.

<sup>1</sup> Source: Rider Levett Bucknall Report – includes Dubai Marina Primary, Dubai Marina Secondary, International City, JBR, The Greens, The Views, Discovery Gardens, JLT, Palm Jumeirah, Downtown Super, Downtown Primary, and Business Bay

<sup>2</sup> Source: Rider Levett Bucknall Report – includes Arabian Ranches, The Views, Palm Jumeirah, The Springs & The Meadows, Emirates Living, Al Furjan, Motor City, and Dubai Sports City

#### Residential multi-storey



AED per sq m

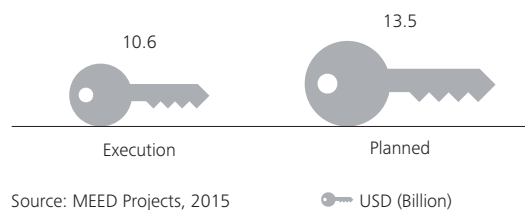
% Change from Prev Report

Source: Rider Levett Bucknall, 2015

# Hospitality/Leisure sector

The total development activity within the hospitality/leisure sector is estimated at USD24.1 Bn, and made up of projects in the execution planning stage as depicted below:

## Hospitality/Leisure sector – Dubai



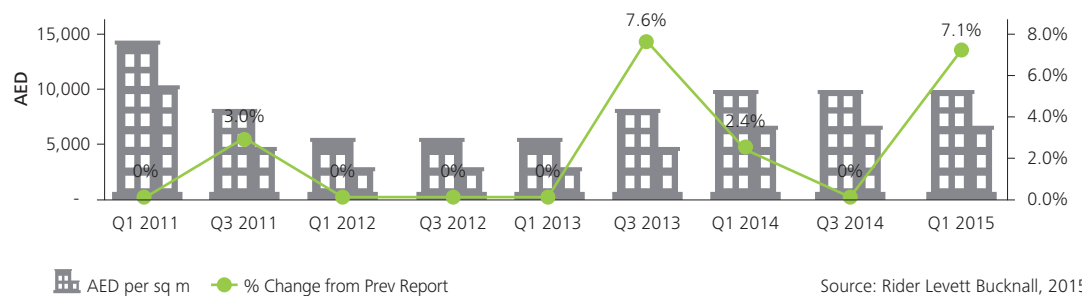
The largest project is Meraas Holdings' Dubai Theme Park which has a value of USD2.2 Bn, of which USD646 M is under execution. Dubai Parks & Resorts, a subsidiary of Meraas Holding, is developing a multi-themed leisure and entertainment project which will have 73 attractions in three separate phases, namely: Motion Gate, Legoland & Bollywood, a four star Lapita hotel and Riverpark.

Finally awarded in Jan 2016, one of the largest is the USD1.4 Bn Royal Atlantis Resort & Residences – Phase 2 where the project includes a 46 storey (1,050 rooms) hotel with an aquatic arena for dolphin displays, indicating a maintained strong growth within the hospitality and leisure sector across Dubai.

## Dubai's hospitality market performance and outlook

Dubai was ranked fourth in MasterCard's 2015 Global Destination Cities Index behind London, Bangkok, and Paris, with an estimated 14.3 million international overnight visitors, up 8% on the previous year. According to the MasterCard report, in the event that Dubai's current growth rate continues, the Emirate would be poised to reach third place behind Bangkok and London, galvanising the need to satisfy that demand with additional hotel rooms across a number of price points.

## 5-Star Hotel



The hospitality market is a key component of Dubai's strategic development plans. The volume of development is exceptional, and to-date performance has remained relatively robust.

### 3-Star Hotel



Source: Rider Levett Bucknall, 2015

### Rising build costs

In the 4-year period from Q1 2011 through to Q1 2015, the average construction cost per square metre of gross floor area for a 3-star hotel has increased by 17.9% from AED6,150/sq m to AED7,250/sq m respectively. Over the same period for a 5-star hotel, it increased by 21.6% from AED9,250/sq m to AED11,250/sq m (Rider Levett Bucknall, 2015).

### Commodity price movements

Clearly market fluctuations, and the volume of activity within a given sector or location, affects building costs. By way of example, the cost to construct a 3-star hotel, of 30,000 sq m gross floor area including a basement car park would have cost, on average AED199,250,000 in Q1 2011 compared to approx. AED236,500,000 in Q1 2015, reflecting an increase of 18.7%.

Similarly, the cost to construct a 5-star hotel, of 30,000 sq m gross floor area including a basement car park would have cost approx. AED292,250,000 in Q1 2011 compared to AED356,500,000 in Q1 2015, showing an increase of 22% during the period.

There appears to be no consistent correlation in construction material price changes, however:

- There was an overall materials price index increase of 3.7% from Q1 to Q3 in 2011, according to the Dubai Chamber of Commerce Construction Material Price index;

- Wires and cables saw an increase over the same period equating to 30.9% which may be a consequence of the rising trend through 2010 of the copper raw material price which peaked in 2011 before falling through 2012<sup>3</sup>;
- The Q3 2011 increase may well be attributed to the recovery from the global financial crisis; and
- Q1 2012 to Q1 2014 saw a gradual decrease in the materials prices of 3.7% overall, with the only noticeable material to not follow this trend being Ready Mix Concrete.

<sup>3</sup> Source: Cable and wire information forum - <http://www.forum.cabledatasheet.com/general-discussion/raw-material-price-trends/>

Whilst the relative cost of constructing hospitality sector assets has increased since 2011, the demand for these assets remains high, underpinning Dubai's strategic focus on tourism



# Retail sector

The total quantum of development within the Retail sector is estimated to be USD8.7 Bn, as depicted below:

## Retail sector projects – Dubai



Source: MEED Projects, 2015

According to Department of Tourism and Commerce Marketing ("DTCM"), retail has become a key component of the Dubai tourism offering and this perception is underpinned by the size and volume of projects planned or under construction. What is marked about these figures is that only USD2.6 Bn is under construction, with the majority still in the planning stages. These projects are likely to come on stream closer to 2020, when visitor numbers are expected to exceed 20 million per annum.

which will develop into a full commercial hub for design related industries and supporting organisations which cater to the fashion and luxury related sectors.

The USD1 Bn Mall of the World - Phase 1 is the second largest project. The current profile includes a mall occupying 8 million sq.ft, with additional components potentially extending this budget further. No physical progress has yet been made, and given the current economic uncertainty it could be argued that this scheme could become a casualty of market sentiment in the short to medium term.

## Dubai's retail market performance outlook

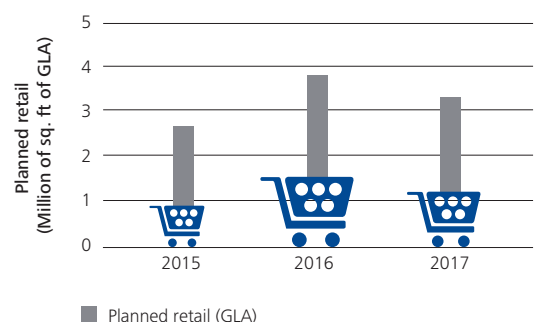
According to a report published by Emirates NBD in June 2015, the wholesale and retail trade sector is considered the second largest in Dubai's economy, recording a share of 28.9% of total GDP in 2014, and employing roughly 25% of Dubai's total workforce. Emaar Malls Group ("EMG") reported 90 million visitors during the first nine months of 2015, equating to 11% growth YTD, and a 2.9% increase in tenant sales, compared to 2014 (Q1 to Q3).

The number of announced projects which have not yet broken ground could increase retail supply in Dubai by an additional 25 million sq.ft or 76% GLA, further underpinning the importance of this sector on the local economy.

Retail represents another important component of Dubai's tourism offer with unprecedented investment in new retail-led schemes to attract foreign tourists

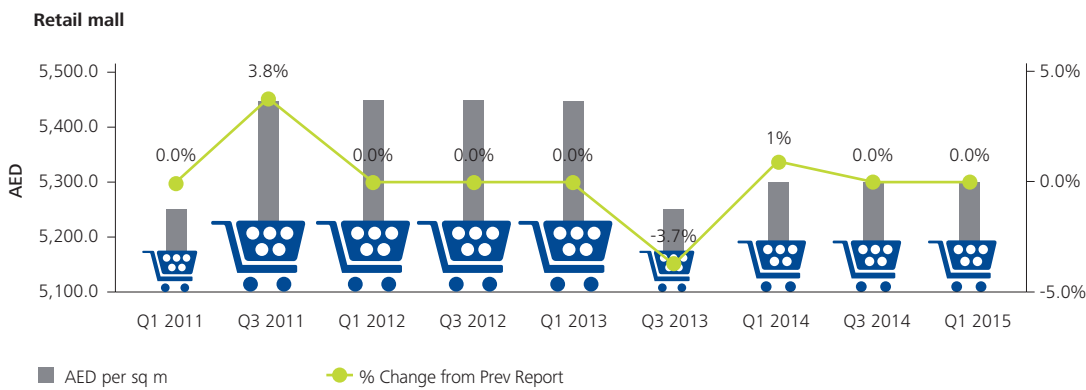
The five largest projects in the retail sector are in the pre-execution phase. The largest of these projects is the USD1.1 Bn Dubai Holding – Dubai Design District (D3)

## Planned retail (GLA)



Source: Deloitte, 2015

## Fluctuating build costs



Source: Rider Levett Bucknall, 2015

There was a small increase of 1% to the average construction cost metre in the period Q1 2011 through to Q1 2015 from AED5,250/sq m to AED5,300/sq m respectively (Rider Levett Bucknall, 2015). In Q1 2011 the average construction cost per square metre of gross floor area was AED5,250/sq m and in Q1 2015 was AED5,300/sq m showing a modest increase.

### Commodity price movements

To construct a retail mall, of 50,000 sq m gross floor area including a multi-storey car park the cost in Q1 2011 would have been AED287,000,000 compared to AED294,500,000 in Q1 2015, showing a modest increase of 2.6% during the period.

It is noted that there are only three changes to the average cost over this period, with the most noticeable changes occurring in Q3 2011, an increase across all material prices of 3.7% as referenced earlier in this report, and a decrease in Q3 2013.

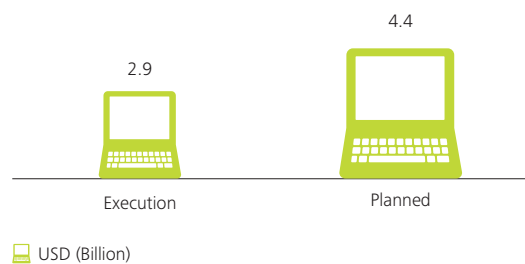
Unlike other sectoral price shifts attributed to build costs, which have been inconclusive, the retail construction costs appear to closely follow the trend of the overall construction material prices.

In overall terms, the cost of building a retail asset appears to have remained constant, so whilst costs remain steady, the size, scale and diversity of the retail offer has become more multi-faceted

# Commercial sector

The total quantum of activity within the commercial sector is estimated to be USD7.3 Bn, as depicted below:

## Commercial sector projects – Dubai



Source: MEED Projects, 2015

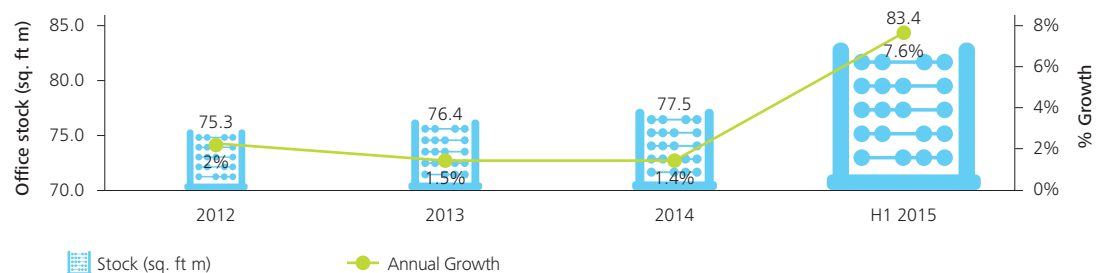
The two most notable projects are both in the pre-execution phase and both relate to Dubai World Central ("DWC"), these being Logistics City and Commercial City. The combined value of these two projects is over USD2.5 Bn and will give a much needed boost to the

commercial sector, supporting the anticipated DWC Airport expansion plans and growth at the Jebel Ali Port, effectively forming an industrial corridor.

## Dubai's commercial market performance and outlook

In 2008, the completed office stock stood at approximately 40 million sq.ft. At the end of 2014, this number climbed to an approx. 80 million sq.ft. Total office stock in Dubai has increased at a Compound Annual Growth Rate ("CAGR") of approximately 3.5% over the last 3-years.

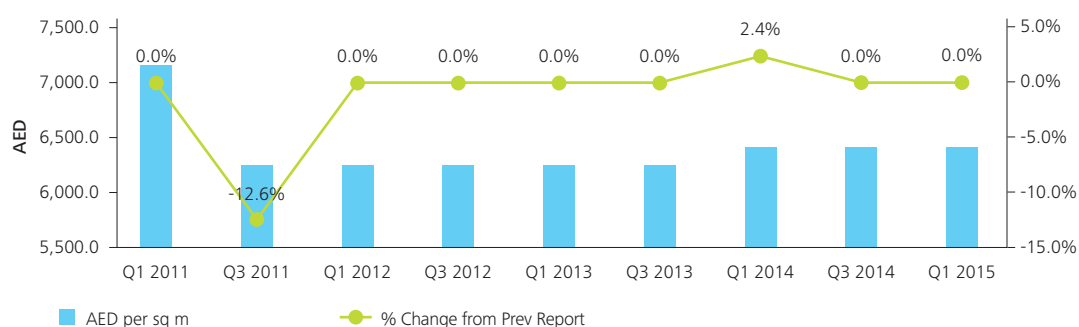
Dubai's total office stock is expected to reach more than 95 million sq.ft by the end of 2016, with the majority of new provisions located in areas such as Business Bay, TECOM and JLT. However, only a small amount of the expected supply would represent international Grade A quality.



Source: Deloitte, 2015

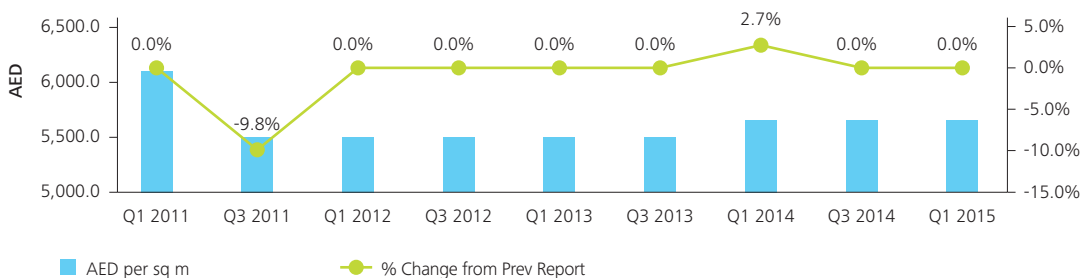
The commercial sector remains a proportionately small part of Dubai's economy than in other major cities, mainly due to abundant supply

### Office premium



Source: Rider Levett Bucknall, 2015

### Office Grade A



Source: Rider Levett Bucknall, 2015

### Falling build costs

Commercial office development, always a barometer of economic prosperity in mature markets, is one of the least active sectors in Dubai. To construct a premium office space, of 50,000 sq m gross floor area including a multi-storey car park, the average cost in Q1 2011 would have been AED382,000,000 compared to 349,500,000 in Q1 2015, showing a reduction of -8.51% in pure build costs.

Similarly, a Grade A office, of 50,000 sq m gross floor area including a multi-storey car park would cost AED329,500,000 in Q1 2011 as opposed to AED312,000,000 in Q1 2015, showing a reduction of -5.3% during the period.

### Commodity price movements

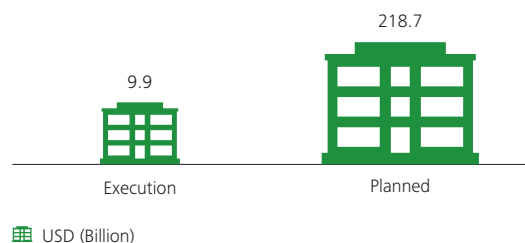
There was an overall average increase to the material prices of 3.7% as reported earlier:

- The 4% drop in ready mix concrete cannot account alone for the approx. 10% decrease in overall construction costs shown in the tables.
- Average cost changes do not run parallel to the material price indices changes, with an overall increase in the material prices in Q3 2011, but a drop in construction costs; and a drop in construction prices for each quarter leading up to and including Q1 2014, but an increase in construction prices – further evidence that there is no correlation between the average construction price changes and the overall construction material price changes.
- Only two changes to the average cost over this period were noted; the first in Q3 2011, signalling a drop for both office types of approx. 11%; and the second in Q1 2014, boasting an increase for both office types of approx. 2.5%.

# Mixed use

The total quantum of activity within the mixed-use sector is estimated to be USD228.6 Bn – this is split again by projects either in the execution stage or the planning stage, as is depicted below:

## Mixed use – Dubai



Source: MEED Projects, 2015

## Mixed use

Arguably Dubai's most high profile sector, some of the most iconic mixed-use schemes are as follows:

### 1. Dubai Government – Expo 2020 Masterplan

A 438-hectare site will provide a gated Expo area, covering 150 hectares, and will be surrounded by a residential, hospitality and logistics zone. The master plan will project the theme 'Connecting Minds, Creating the Future.' The gated area will have three zones for the mobility, sustainability and opportunity Expo 2020 sub-

themes, which will meet at the central Al Wasl Plaza. There will be three souks, one in each zone. Each thematic zone will have one feature Entertainment Venue and a specialised Theme Pavilion. The Al Wasl Plaza will be surrounded by the UAE Pavilion, Welcome Pavilion and Innovation Pavilion. In addition, housing facilities for staff from the participating countries working on Expo 2020 will be offered at the Expo Village, which is likely to be completed by 2018. Construction of the pavilions is expected to follow soon after.

### 2. Dubailand: Mudon (Dubai Holding)

Dubai Holding is already constructing Mudon, a mixed-use community housing 45,000 people, within Dubailand, spread across an area of 680 hectares.

The scope of the project includes:

- District Centre
- Residential buildings (253 nos.)
- Mixed-use buildings (64 nos.)
- Hotels (10 nos.)
- Lakes (26 nos.)
- 132kV substations (4 nos.)
- Sewage treatment plant
- Villas (3,700 nos.)
- Detached villas (1,490 nos.)
- Courtyard villas (170 nos.)
- Townhouses (1,320 nos.)
- Apartments (3,400 nos.)
- Signature apartments (1,800 nos.)
- Office space
- Hotels (10 nos.)
- Restaurants
- Retail outlets (4,807 units)
- 18-hole golf course (93 hectare)
- Associated facilities

Mixed-used schemes represent a large proportion of Dubai's construction market, many of which are targeted at the tourism sector to attract those reported 20 million visitors



### 3. Meydan City: Meydan Horizon (Meydan)

The developer is planning to build Meydan Horizon in the Bu Kadra area. The development is divided into three parts:

- Horizons North District
- Eastern Extension District
- Horizons South District

Horizons North will cater to high rise towers along a retail and F&B lined canal promenade. The Eastern Extension carries on North's typology and transitions into a medium density development while the South District will consist of a medium to low density residential development amongst other amenities.

- Towers
- Residential buildings
- Green spaces
- Retail park
- Canal promenade

### 4. Business Bay: RP One (RP Global Developers)

RP Global is constructing a mixed use development on Sheikh Zayed Road situated right behind the Business Bay Metro Station referred to as RP One Tower (RP 1). The high-rise is expected to be the second tallest tower in Dubai.

Located adjacent to Jumeirah Business Bay, the project will include a 200-room hotel, 350 serviced apartments and 290 luxury residences and will have a built-up area of over 3 million square feet, including:

- Mixed Use Tower
  - o Luxury hotel (200 rooms)
  - o Services apartments (350 rooms)
  - o Luxury residences (290 rooms)
  - o Car park
  - o Food and beverage outlets

- o Retail units
- o Talise spa and health club
- o Conference and banquet
- o Open air rooftop sky bar
- Associated facilities

### Commodity price movements

As the mixed-use sector, by its very nature, comprises of residential, retail, commercial and hospitality/leisure components, it is not directly applicable to analyse specific build costs or fluctuations which affect construction activity. These are explored further in other sectors within this report.

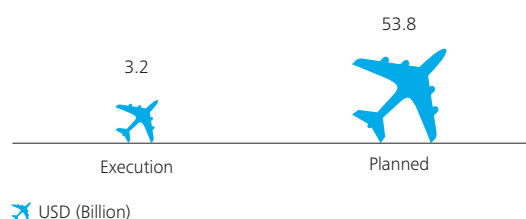
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The size and scale of these mixed-use schemes are staggering by any standards. Add to that the fact that there are a number of these projects across Dubai, and it is easy to see why they form such a large proportion of the Emirates Capex plans over the coming year

# Transport sector

The total amount of activity within the transport sector is estimated to be USD57 Bn, as depicted below:

## Transport sector – Dubai



Source: MEED Projects, 2015

The transport sector typifies a major growth sector within the Emirate, reflecting Dubai's plan to be the regions' primary transport "hub". Outlined below are some of the key projects within this market sector which make up the planned/under construction pipeline of projects by value.

## Airports

### 1. DXB Dubai International Airport

Due to the double-digit growth in passenger traffic, the Government has approved the USD7.8 Bn expansion of Dubai International Airport (part of the 2020 expansion plan). By 2020, passenger numbers will reach 103.5 million and cargo volumes will top 4.1 million tonnes.

Current capacity is 70.5 million passengers and is expected to increase further in 2016 with the opening of concourse "D".

The construction of Concourse D will help in managing the capacity of the airport increasing to 90 million passengers. The concourse will be located to the west of Concourse A, near to the cargo terminal and will be connected to Terminal 1 by an elevated bus road. The site area covers about 225,000 square metres, and the total built-up area is expected to be about 135,000 sq m. In addition, there are plans for the expansion of Terminal 2, and the complete refurbishment of Terminal 1.

### 2. DWC: Al Maktoum International Airport

Al Maktoum International at Dubai World Central (DWC), Dubai's second airport, opened its doors to passengers on October 27, 2013.

Earlier in 2015 Dubai Airports announced a project to expand existing passenger terminal at DWC to accommodate 26 million passengers per annum by 2017. Construction on the project is expected to begin in the second half of 2016.

The project is a precursor to the USD32 Bn expansion project announced by Dubai Airports in September 2014 to create the world's biggest airport with an ultimate capacity in excess of 200 million passengers per year, and a cargo capacity of 16 million tonnes per annum.

Surrounding the airport are significant on going developments including an airport city, and areas dedicated to aviation, logistics, office park, commercial and residential use. End user demand is expected to accelerate as airport operations increase and the development will be linked to Dubai International Airport through an express rail system which is planned to be operational in time for World Expo 2020.

Transport remains a key driver to Dubai's economic diversification. The new Al Maktoum International Airport, which will eventually become the world's largest, typifies this strategy

## Roads & streets:



# USD13.8 Bn

The Roads & Transport Authority (RTA) is planning to increase the capacity of the roads within the Emirate. The overall masterplan involves building approximately 500KM's of roadways, 95 new interchanges, 9 new ring-roads, and 81 creek crossing lanes.

The Dubai to Abu Dhabi Highway Phase I & II will consist of total 62 Kilometres of dual carriageway.

The RTA currently has infrastructure projects worth approx. USD12 Bn in the execution phase spread over 22 projects, which is notable. The two largest projects under execution are the USD218 M RTA Dubai Canal Creek Extension – Phase 3, and the USD351 M Musanada Dubai Abu Dhabi Highway – Phase 1.

## Railway:

### 1. Etihad Rail



# USD7.2 Bn

The planned national rail will cover 1,200 km network and will extend across the United Arab Emirates, from the border of Saudi Arabia to that of Oman. The total investment is estimated at around AED40 Bn (for the core national mixed traffic network).

The network will be delivered in 3 stages. It is mainly double track, and will accommodate freight train to travel at speeds of up to 120 km/h, and passenger trains to reach speeds of up to 200 km/h.

The Etihad Rail network will also connect with the GCC network and this – once fully established – will cover the five GCC countries of The Kingdom of Bahrain, The State of Kuwait, Oman, Qatar, The Kingdom of Saudi

Whilst Dubai's airport expansion remains key, the success of the metro since its opening has provided an opportunity to expand this further, which aligns with Dubai's ambitious sustainability targets

Arabia and UAE. Latest project data suggest this is now on-hold, however.

### 2. Dubai Metro Red Line Extension

Considering the current population growth and extensive use of the metro network, RTA is planning to extend the existing Red line and also to meet the requirements and needs of the emirate when hosting Expo 2020. The current Red Line is served by 29 stations, and after the extension, 12 more stations will be built.

The 15km extension connecting the Expo 2020 site will have 7 stations and will run from the Nakheel Harbour & Tower station area onto the Expo site. This line will mostly be elevated (5 stations), with 4 km underground (2 stations), including a section passing under Mohammed Bin Zayed Road.

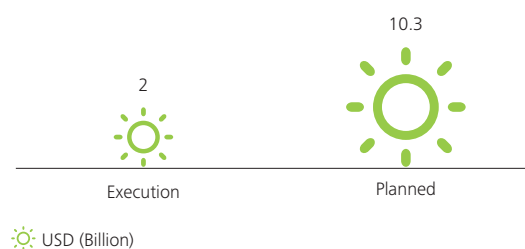
There will be a station at the existing Nakheel Harbour and Tower Station (where it is expected to connect with Etihad Rail) on the Red Line, 3 serving Discovery Gardens, and one each at Golf City, Dubai Investments Park/Green Community, and one at the Expo site. The project is also called Route 2020 or Masar 2020. The development of 'Route 2020' also includes a future plan to construct three stations to serve Al Maktoum International Airport.

The project is estimated to have a value of USD1.3 Bn, with a completion date in December 2018.

# Energy/Power sector

The total quantum of activity within the Energy/Power sector is estimated to be USD12.3 Bn, as depicted below:

## Energy/Power sector projects – Dubai



Source: MEED Projects, 2015

## Energy/Power

In line with Dubai's new and planned physical developments, there are 57 listed projects in this sector across Dubai currently, with approx. 60% of these in the execution phase. The split of projects is varied, with numerous "localised" projects which address immediate energy needs within a specific area of the city, e.g. installation of overhead electricity cabling to address the increasing consumption rates across Dubai.

Listed across the page are some of the key projects in the development pipeline:

### 1. DEWA - Hassyan Coal Fired IPP Phase 1

 **USD3.5 Bn**  
DEWA - Hassyan Coal Fired IPP - Phase 1

Dubai Electricity & Water Authority (DEWA) intends to move forward with a project to use coal to generate electricity. DEWA's decision to turn to coal, which is potentially environmentally problematic and must be sourced from outside the Gulf region, underscores the Emirate's determination to diversify its energy sources away from scarce gas and expensive diesel and fuel oil. DEWA receives all of its natural gas supplies from the fellow state-owned entity Dusup. In recent years, Dusup has experienced a shortage in supply. The power plant will help to deal with soaring demand and shortage for power. The power plant will be located at the Saih Shuaib area on the Arabian Coast.

The plant will be built in two phases to generate 1,200 MW when completed in 2020 and 2021 respectively. It will contribute 12% of projected output under Dubai's 2030 Integrated Energy Strategy.

### 2. Mohammad Bin Rashid Al Maktoum Solar Park

 **USD2.0 Bn**  
Mohammad Bin Rashid Al Maktoum Solar Park

Sheikh Mohammed Bin Rashid al-Maktoum's Green Building directive and the demand for power and water have prompted DEWA to set up a solar power plant in Dubai. The directive came into effect in January 2008 so as to make environmentally-friendly building standards compulsory in the Emirate. Dubai is the second of the seven emirates in the UAE to embark on a solar power scheme. The solar park will be implemented in phases and will combine both CSP and PV technology. The project will be located in a 48 square kilometres area in Seih Al Dahal near the Dubai - Al Ain road.

Supporting the construction demand, the energy sector represents significant Capex across the Emirate. The expected increase in visitors, allied with sustained economic expansion, demonstrates the need for more power. Dubai's sustainability agenda further demands that this power is guaranteed from non-traditional sources, e.g. solar



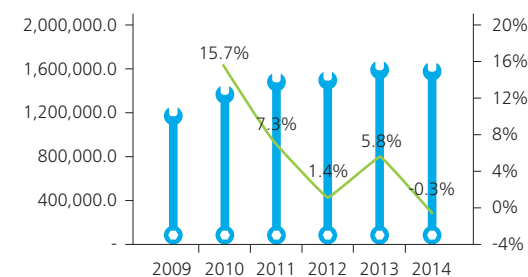


# Commodities indices & trends

Over the next four pages, we analyse the fluctuating prices attributed to commodities such as steel, labour and cement, all of which are key components which affect the construction industry.

## Steel

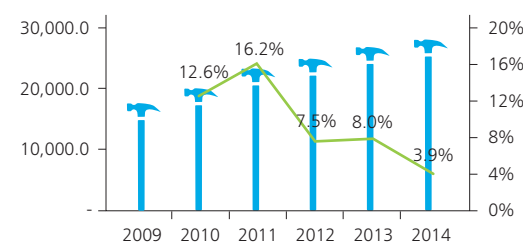
**World Annual Crude Steel Production (Thousand Tonnes)**



World Annual Crude Steel Production Growth

Source: World Steel Association data, 2015

**Middle East Crude Steel Production (Thousand Tonnes)**



Middle East Annual Crude Steel Production Growth

Source: World Steel Association data, 2015

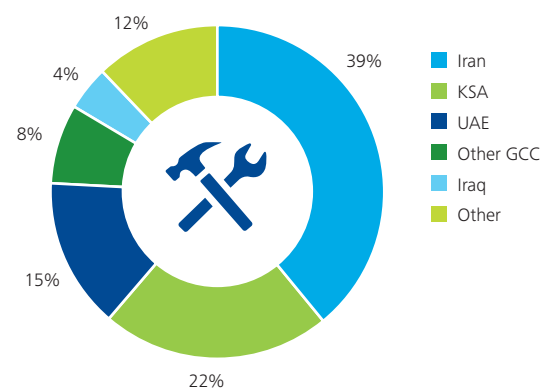
## World and Middle East Steel market

The persistent excess capacity is considered a major issue in the global steel industry. Steel consuming industries continue to see supply growth outpacing demand, in spite of global steel manufacturers maintaining capacity utilisation rates below 80%. This is in stark contrast to pre-2008 period where Chinese demand and sustained usage of the material across the Middle East resulted in shortages.

2010 saw an impressive recovery of 15.7%, after a -7.8% reduction in 2009. Global demand returned to its historical average growth of approx. 7%, before dropping to -0.3% in 2014. Steel production in the Middle East is estimated at 28 million tons in 2014. This represents an increase of approx. 57% from 2009, when production was around 17.8 million tons, at a Compound Annual Growth Rate (CAGR) of 9.6%.

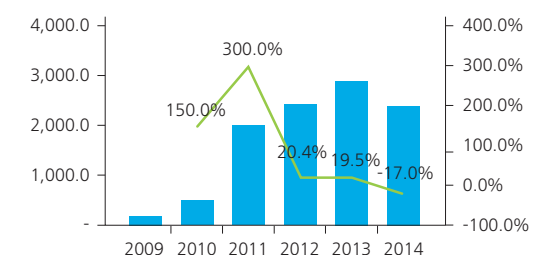
## UAE market - Steel

**Share in Middle East steel demand**



Source: Dubai Chamber of Commerce and Industry, 2014

**UAE Annual Crude Steel Production (Thousand Tonnes)**



UAE Annual Crude Steel Production Growth

Source: World Steel Association data, 2015

The vibrant construction and infrastructure sectors in the GCC are the main drivers in confirming the Middle East as a net importer of iron and steel products. The main imports are rebar at 16.7 million tons, contributing to 37% of total demand, and flat steel (hot rolled coils) at 12.1 million tons, 27% of total demand.

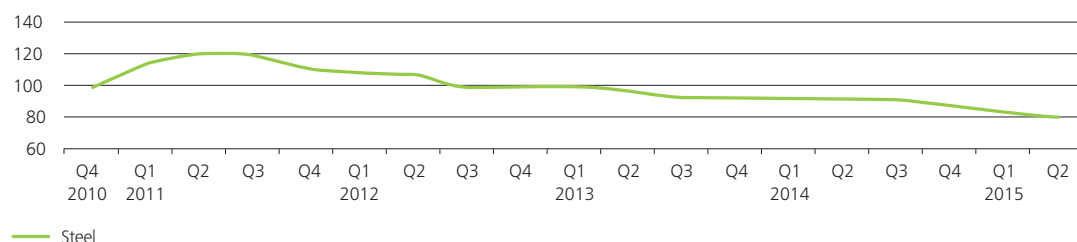
UAE production has been increasing for the period 2009-2013 from 200 million tons to 2,878 million tons in 2013, representing a CAGR of approx. 64.2%. This further underpins the construction sector growth as evidenced throughout this report.

The first half of 2011 saw a rapid growth in prices (22% in H1 2011), followed by a constant overall decline of 34% until Q2 2015. The cause of the significant

increase in prices was due to international markets shortage of the raw material. Global supply and demand forces, in addition to freight costs impact on international prices. Local demand does not constitute a main role in price movement.

According to OECD, the construction sector is the largest steel consuming sector with 52.2% of global demand, followed by machinery at 14.2%, and automotive at 11.6% and other sectors comprising the remainder. UAE and KSA fluctuations in steel prices is clustered, which can suggest that regional demand could affect prices in the short term only, as international demand will be the main determinant in setting the prices in the long term.

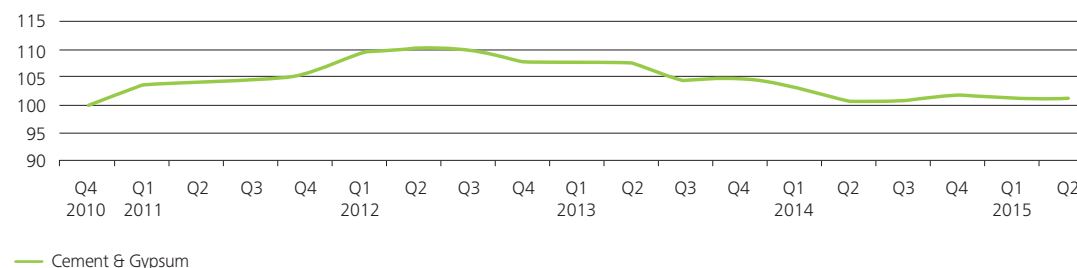
#### Dubai Steel Price Index



Source: Dubai Chamber of Commerce and Industry, 2015

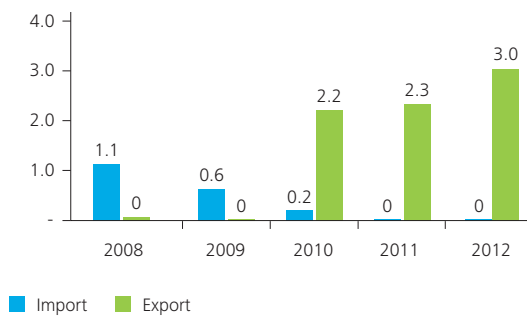
#### Cement

##### Dubai Cement Index



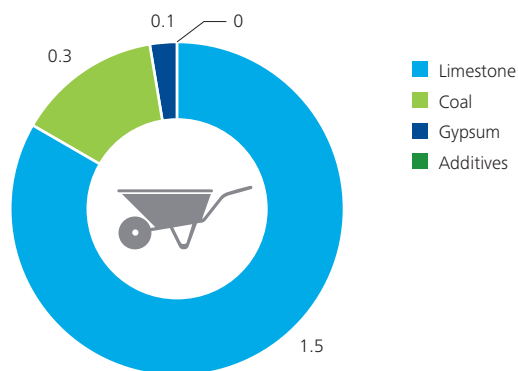
Source: Dubai Chamber of Commerce and Industry, 2015

**UAE Cement Trade**



Source: Dubai Chamber of Commerce and Industry, 2015

**Production of 1 ton of cement**



Source: Dubai Chamber of Commerce and Industry, 2015

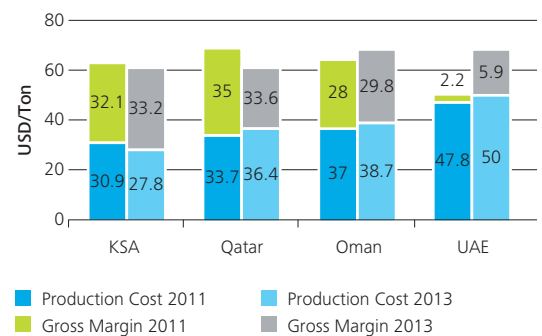
Three major trends are seen in Dubai since Q4 2010. A rapid growth in 2011 (10%), followed by a stabilisation of prices in 2012, and then a decline from 2013 to reach a cumulative increase of 1.3% compared to values of Q4 2010. Due to excess production, the UAE became a net exporter in 2010 after being a net importer. By 2012, local producers effectively exported 3 million MT of Portland cement.

### UAE Market – Cement

The cost in the UAE is almost double the cost in KSA (USD50 vs. USD27.8 Per MT). Since the GCC countries have relatively similar production conditions (technology, labour, and raw material), it could be assumed that the reason behind the price difference is energy cost and/or localised demand. Most GCC countries have extremely high margins that are due to low energy prices, which creates barriers to new players in the market.

UAE cement prices (USD55.9 Per MT) are 12% lower than the average across the GCC (USD63.9 Per MT), but energy costs represent approx. 30% of the total production cost, and having that cost subsidised at rates of 56%-78% in the GCC makes the production costs in the region some of the lowest globally.

### Cement prices across the GCC



Source: Dubai Chamber of Commerce and Industry, 2015

Construction sector spend remains high, and the pipeline of projects equally so. However, future project expenditure is focused on infrastructure rather than sector or demand specific schemes

# Labour rates

The relative cost of material prices still comprises a lower proportion of the total build costs across all sectors – labour remains the largest portion of construction costs, which means that changes in these costs have a more profound impact on tender pricing.

## Project manager

From Q1 2012 to Q3 2015 there is a total decline of 24.9% (AED43.1 per hour) in the average salary for this grade. Whilst Q4 2012 saw a sharp increase, with the highest rise of 22.8% from the previous quarter there has since been a steady decline in the hourly rate. This may be a result of increased competitiveness across the market, and a more measured approach from employers.

## Site engineer

Over the four labour categories of project manager, site engineer, skilled labour and unskilled labour, the site engineer is the only role that saw an overall increase in the hourly rate from Q1 2012 to Q3 2015, of 4.8% (AED2.2 per hour). Indeed a sharp increase was noted in Q1 2013, which saw the highest rise from the previous quarter. However, Q4 2013 through to Q3 2014 saw a steady decrease, seeing a total decrease of 16.9% from that in Q3 2013 which mirrors that of other roles – again perhaps an indicator of more measured remuneration packages and increased competition for roles.

## Skilled labour

Unlike the project manager and site engineer categories, the skilled labour hourly rate did not move for the whole of 2012. From Q1 2012 to Q3 2015 there was a total decline of 29.2% (AED4.9 per hour) – the largest percentage change across the four categories and most likely an indicator of more players in the market and hitherto, increased competition.

## Unskilled labour

In a similar trend as skilled labour, the unskilled labour did not move for the first 3-quarters of 2012, but from Q1 2012 to Q3 2015 there was a total decline of -2.8% (AED2.8 per hour), similar to other skill sets outlined above.

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Whilst the demand for construction projects remain high in relative terms, lower volume of projects awarded during Q3 & Q4 of 2015 has increased pricing competition as margins are falling across the industry





# Conclusion

There is a significant pipeline of projects which are either under construction or in the planning stage across Dubai.

The sheer size, scale and value of these projects dwarf many others outside of the region, providing clear evidence that the development cycle remains strong and in an upwards trajectory, albeit against a backdrop of economic uncertainty. How this cycle might end is anyone's guess, but the Dubai Government has been proactive in regulating development much more stringently than in the past.

The current concerns relating to low oil prices and diminished market sentiment has clearly had a short term impact. Whilst the ongoing geo-political factors equally have profound effects, the fact that many Governments across the region, not least the Government of Dubai, are continuing to spend on infrastructure and other strategic developments suggests that they foresee the oil price issue and political turmoil as a temporary one.

Ultimately, the holistic consideration of projects is key. Assessing the potential demand, profitability and external perception of projects will always be significant. The mere action of building a project and expecting the demand to be there no longer applies, as the fundamental cost basis for these projects remains volatile and competitive.

Focusing on factors such as affordability, differentiation and quality are going to be increasingly important factors, and it is hoped that such considerations will ultimately underpin the rationale for conceiving projects. Simply constructing the tallest or most unique project no longer provides the impact it once did, so diversifying the offer by promoting a world class standard appears to be the mantra moving forwards.

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Whilst current economic uncertainty and low oil prices remains a concern, it is expected that these will be shorter term issues that will not ultimately affect Dubai's ambitious plans moving forward

However, these are simply the "building blocks" that any mature economy would expect to have in place. What is interesting is the connectedness of Dubai as an increasingly "smart city", and the clear move towards more sustainable development and practices within the construction industry itself. Only through continued application of these smart and sustainable practices will the development industry in Dubai ever be considered "mature."

Who knows, Dubai may even mature to the extent that it could surpass some of the more established cities across the world, such as London, Paris or New York, in terms of its level of sophistication and dedication to sustainability, smart city principles and ultimately success in delivering projects that are demand driven and profitable. Taking a measured approach to development will always be critical to successfully avoiding the effects of market fluctuations.

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