

CHAPTER 9 | 

Industry





Dubai's industrial sectors, Manufacturing, Mining and Quarrying and Electricity and Gas, are important pillars of the economy. The Dubai Industrial Strategy 2030 aims to boost the global competitiveness of Dubai's industrial sectors and make them a powerful economic growth engine. The strategy's key objectives: transform Dubai's industrial sector to be innovation-based; a home for global businesses; to be environmentally sustainable and support a green economy; and to adopt Islamic standards to manufacture "Halal" products and contribute to Dubai's goal to become the capital of the Islamic economy.

- ✔ The Dubai Industrial Strategy 2030 aims to transform Dubai's industrial sector into a global platform for knowledge-based, sustainable and innovative industries.
- ✔ The electricity and gas sector's total output more than doubled over the period 2009-2017 and achieved a value added in constant prices of AED 10.2 billion in 2017, up 4.6 per cent from the year before.
- ✔ The sector's total output more than doubled over the period 2009-2017 and its contribution to GDP rose from around 1.5 per cent in 2009 to 2.5 per cent in 2017.
- ✔ Manufacturing is one of the main employment sectors for the workforce in Dubai, both in direct manufacturing operations and industry-related operations.
- ✔ Dubai's logistic network and its excellent air, sea and land transport capabilities, and its strategic location between East and Western Europe, will foster its industrial transformation.

Dubai Industrial Strategy 2030

To boost global competitiveness in the industrial sector, Dubai has launched the Dubai Industrial Strategy 2030.

1 Five Objectives:

Transform Dubai's industrial sector to:

-  be innovation-based
-  be a home for global businesses
-  be environmentally sustainable and support a green economy
-  adopt Islamic standards to manufacture "Halal" products and contribute to Dubai's goal to become the capital of the Islamic economy.

2 Six Sectors:

There are six industrial sectors have been identified to lead its economic transformation:

-  Aviation
-  Ships
-  Pharmaceuticals & Medical equipment
-  Fabricated Metals
-  Machinery & Equipment
-  Consumer goods

3 Performance indicators:

An additional of **AED 18 BILLION** in real value added in Manufacturing

Create **27,000 NEW SKILLED JOBS** in Manufacturing

Boost **AED 16 BILLION** in exports

Invest **AED 700 MILLION** in R&D



Introduction

Dubai's industrial sector mainly consists of these three sectors: Manufacturing, Mining and Quarrying, and Electricity and Gas. The industrial sector is one of the primary pillars of the economy due to its numerous contributions to economic and social development. In addition, it is collectively the second largest main sector in the economy of Dubai.

The total industrial sector's value added in constant prices stood at AED 53.7 billion in 2017 up from AED 52.4 billion in the previous year, registering a growth of 2.5 per cent. Manufacturing accounted for the highest share of industrial output with 68.5 per cent, followed by electricity and gas (19 per cent) and mining and quarrying (12.5 per cent). Collectively they account for 13.7 per cent of GDP in constant prices. The three industries have maintained their current shares in the GDP for the past five years,

except for mining and quarrying, whose contribution to GDP slightly decreased from 2 per cent in 2015 to 1.7 per cent in 2016 and plateaued in 2017.

Recognizing the importance of stimulating industry in order to drive economic growth, the Emirate of Dubai launched in 2016 the Dubai Industrial Strategy 2030, which aims to transform Dubai's industrial sector into a global platform for knowledge-based, sustainable and innovative industries. Since the start of implementation of the strategy, various government and private entities as well as industrial free zones were assigned specific roles and tasks to achieve. To this end, key performance indicators (KPIs) were set to assess achievements in light of the numerous initiatives they adopted to drive growth and increase the sector's contribution to the emirate's GDP.

The Dubai Industrial Strategy 2030 aims to transform Dubai's industrial sector into a global platform for knowledge-based, sustainable and innovative industries.

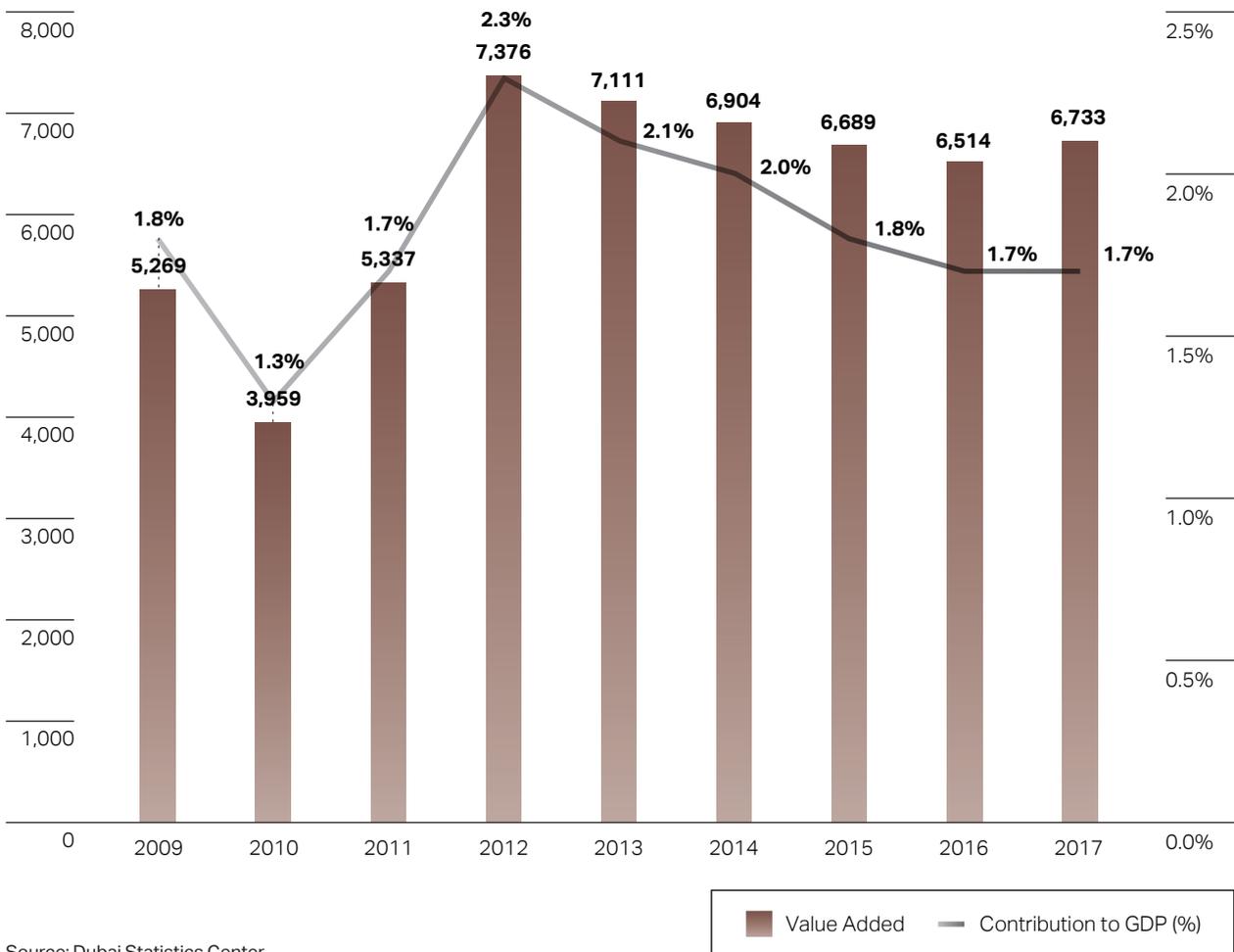
Mining and Quarrying

9.1 Extractive industries rely on materials extracted by mining and drilling including oil, natural gas and mineral and non-mineral ores. The extractive sector is not considered to be a major part of Dubai's economy, but it contributes in terms of employment and it also covers the market demand for the primary, intermediate and final products related to the sector. The value added generated in constant prices of mining and quarrying activities amounted to AED 6.7 billion in 2017 slightly up from AED 6.5 billion in 2016. The mining sector saw a reverse in its fortunes growing by 3.4 per cent in 2017

compared to a fall of minus 2.6 per cent the year before, the fourth consecutive year of negative growth.

The sector's contribution to GDP has fallen, dropping from 2 per cent in 2014 to 1.7 per cent in 2017. This has been partly attributable to the sharp decline in the international prices of primary commodities, due to falling demand, which in turn had adverse effects on the local production and exports of primary commodities and energy. This situation coincided with the depleting resources of traditional energy that Dubai is endowed with, as highlighted in the Energy and Water chapter of this report. (Figure 9.1)

Figure 9.1: Value Added of Mining and Quarrying (AED million) and Contribution to Constant Price GDP (%)



Source: Dubai Statistics Center

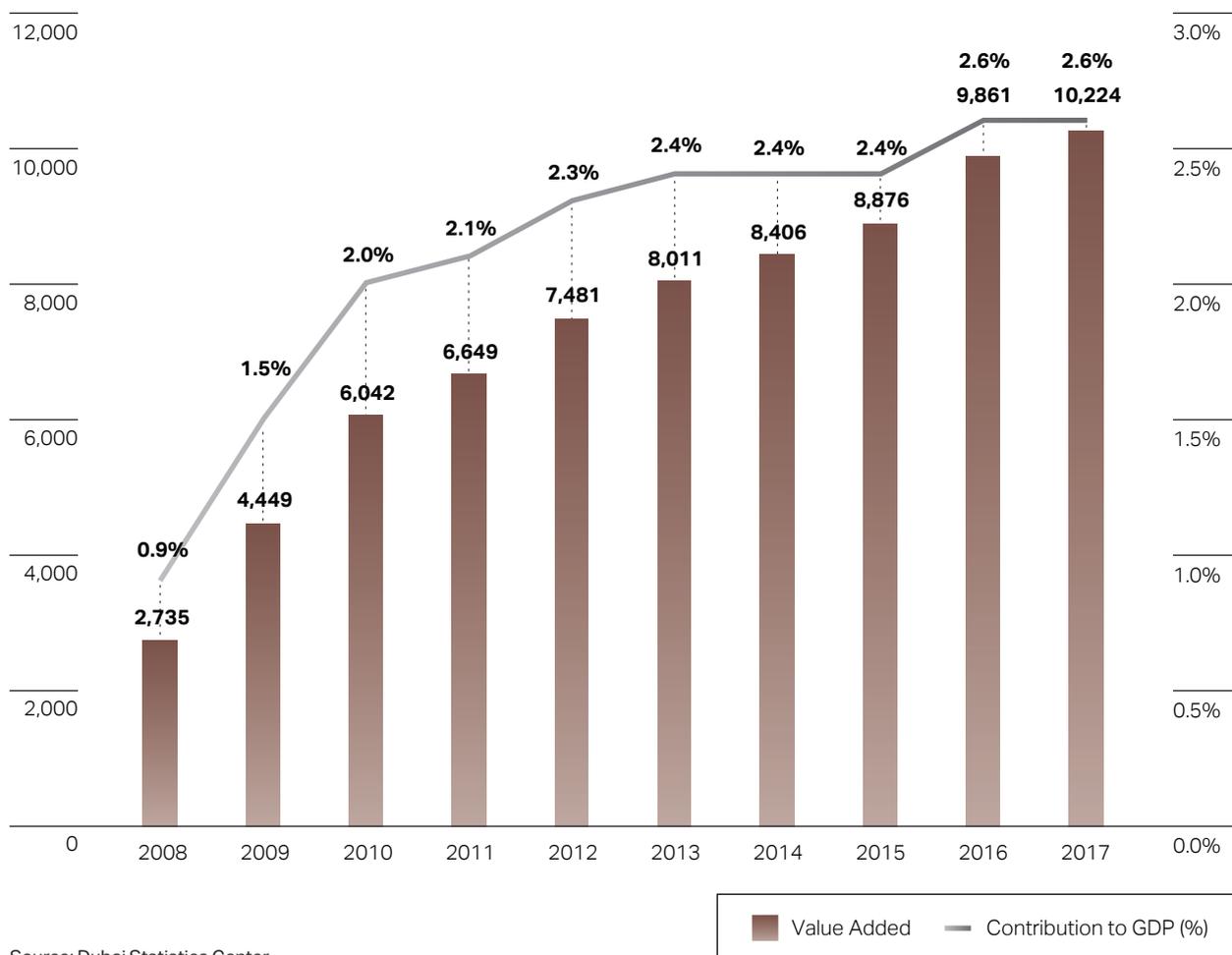
Electricity and Gas

9.2 The electricity and gas sector is defined in the National Accounts of Dubai as the supply of electricity and gas, steam and air conditioning. The sector has made strides in recent years achieving a value added in constant prices of AED 10.2 billion in 2017 and growing at 4.6 per cent from the year before.

The sector's total output more than doubled over the period 2009-2017 and its contribution to GDP

rose from around 1.5 per cent in 2009 to 2.5 per cent in 2017. The workforce in electricity and gas accounts for around a half per cent of the total workforce in Dubai. The rise in employment in the electricity sector resulted from the growing demand for electricity and gas due to the rapid growth in population and the rising demand from the industrial, real estate and tourism sectors. Further details are provided in the Energy and Water chapter of this report. (Figure 9.2)

Figure 9.2: Electricity and Gas Value Added (AED million) and Contribution to Constant Price GDP (%)



Manufacturing Industries

Recent Developments in Manufacturing

9.3 The value added of manufacturing (in constant prices) rose to AED 36.8 billion in 2017 compared to AED 36 billion in 2016 and 34.5 billion in 2015. However, the rate of growth in manufacturing more than halved to 2 per cent in 2017, compared to a growth of 4.6 per cent in 2016. Overall, manufacturing has witnessed fluctuating growth rates during the period 2007-2017. Though the annual growth remained positive throughout this period except for 2009, following the global financial crisis when the value added of manufacturing registered a sharp drop of around 7.0 per cent. Thereafter, the sector recovered and registered its highest growth of 8.2 per cent in 2010 but the growth of the sector's value added slowed again reaching its lowest rate of 0.6 per cent in 2015.

In 2017 manufacturing accounted for 9.4 per cent of total GDP in constant prices. The average annual contribution to GDP in the past ten years has been slightly higher (9.6 per cent) but did not exceed 10 per cent of GDP in any of the previous years. (Figure 9.3)

In terms of international comparisons, the average share of manufacturing value added (MVA) in Dubai's constant GDP is considerably less than the average of 13.9 per cent of GDP in the industrialized economies and the average of 20 per cent in developing and emerging industrial economies, according to the UNIDO's Industrial Development report 2018. The report attributes the high MVA share of GDP in the latter countries to the relocation of manufacturing production from industrialized countries to developing countries.

Sectoral Composition of Manufacturing Value Added and Technology Level

9.4 Dubai Statistics Center data for the various manufacturing activities in the emirate in 2016 reveals the main sectors that dominate the manufacturing sector in Dubai in terms of produc-

tion, the relative size of the value added and employment. The leading manufacturing industries were the manufacture of basic metals and metallic products accounting for 26 per cent of Dubai's manufacturing value added, followed by the manufacture of machinery, transport equipment and vehicle repairs (16 per cent), then the manufacture of food products and beverages (13 per cent), basic chemicals and pharmaceuticals (11 per cent), and the manufacture of wood and paper products (11 per cent). Together, these five industries amount to 77 per cent of the total value added of the manufacturing sector in Dubai. (Figure 9.4)

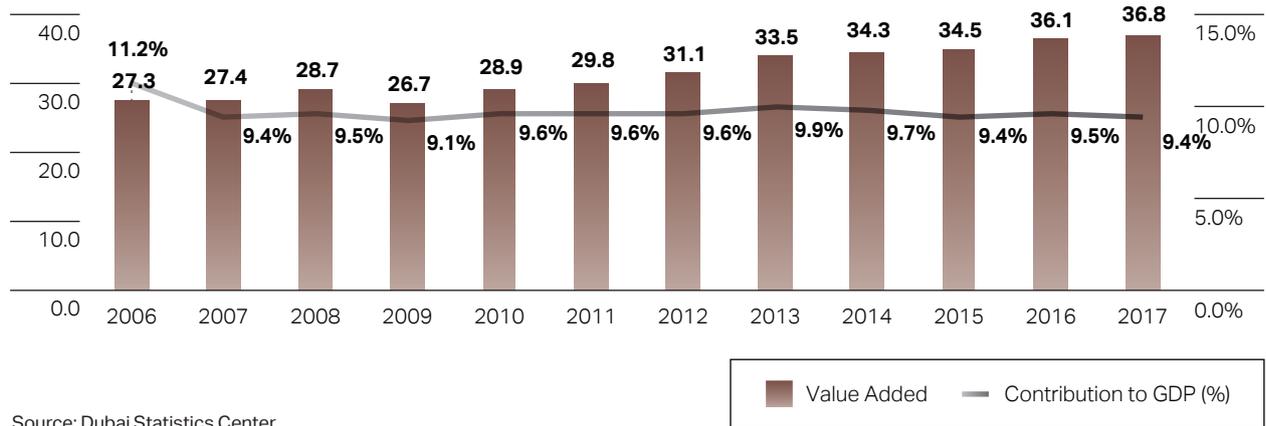
The relative importance of the manufacture of basic metals and metallic products in the emirate's manufacturing base is primarily attributed to Dubai's urban growth especially in the construction sector and infrastructure.

The structure of Dubai's manufacturing is still dominated by low technology and medium-low technological activities, such as basic metals and consumer goods production, characterized by low wage, labour-intensive production methods. International comparisons of Dubai's structure of manufacturing with the world and emerging industrialized countries shows a pattern that medium-high and high-tech products dominate manufacturing production in industrialised economies. (Figure 9.5)

In Dubai low-tech manufacturing accounted for 36 per cent of all production compared to a lower world average of 29 per cent. Low-tech production employs more than two thirds of the total workforce in this sector. In contrast, the share of medium-high and high-tech activities in total manufacturing account for 24 per cent, a substantially lower proportion of total manufacturing value added, than the world average of 44.7 per cent.

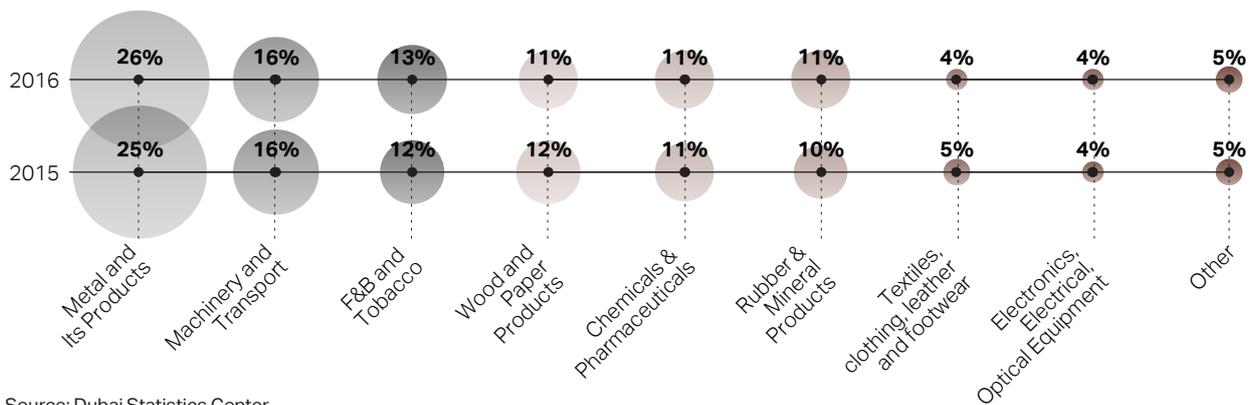
The higher share of the latter industries in total MVA indicates a country's technological intensity in manufacturing and its capacity to introduce new technology into the sector.

Figure 9.3: Manufacturing Value Added (AED billion) and Contribution to Constant Price GDP (%)



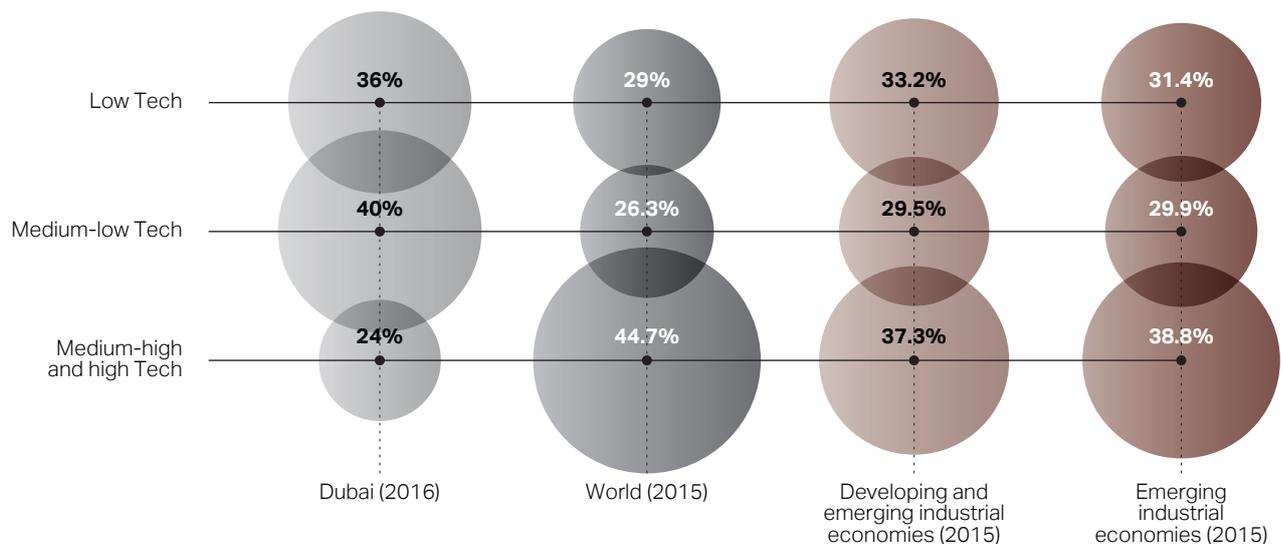
Source: Dubai Statistics Center

Figure 9.4: Contribution of Main Industries to the Value Added of Manufacturing in Dubai (2016)



Source: Dubai Statistics Center

Figure 9.5: Technology Composition of Manufacturing Value Added in Dubai and Industrialized Countries (%)



Note: the three technology groups follow UNIDO's & OECD (2005) technology classification based on R&D intensity relative to value added and gross production statistics

Source: Dubai Statistics Center: Manufacturing Survey 2017, and UNIDO's Industrial Development Report 2018.

Manufactured Exports

Manufactured exports (from Dubai’s main zone) accounted for 94.5 per cent of Dubai’s merchandise exports in 2017, decreasing from 95.1 per cent in 2016. Manufactured exports reached AED 116.9 billion in 2017, falling 5.1 per cent from AED 123.2 billion in 2016.

Most manufactured exports are resource-dependent, low-tech products reflecting Dubai’s manufacturing base, which is dominated by low- and medium-tech industries. The share of these low- to medium-tech manufactured exports accounted for 92.8 per cent in 2017, after falling from 96 per cent in 2010. In contrast, medium high-tech manufactured products such as chemicals, machinery and transport equipment, and communication equipment accounted for 7.2 per cent of all manufactured exports in 2017, raising their contribution to Dubai’s manufactured exports of these goods from 4.0 per cent in 2010. Such increase in the share of high-tech industries’ exports indicates Dubai’s successful industrial diversification path aimed at inducing a higher technological intensity in manufacturing. (Figure 9.6)

Manufacturing employment

Manufacturing is one of the main sectors in terms of the employment of the workforce in Dubai, both in direct manufacturing operations and industry-related operations.

Manufacturing employed around 269 thousand workers or 9.6 per cent of the total Dubai’s employed workforce estimated at around 2.8 million workers, in 2017. Despite its importance, the contribution of manufacturing to total employment has remained steady between 2010 and 2017. (Figure 9.7)

According to Dubai Statistics’ survey of manufacturing in 2017, there are 53,886 workers employed in the manufacture of fabricated metal products, except machinery and equipment, or 20 per cent per cent of total employed in the manufacturing sector. The manufacture of machinery and transport equipment and motor repairs employs around 44,866 workers (17 per cent), food & beverages around 32,571 (12 per cent), wood and paper products around 41,135 workers (16 per cent) and metal and rubber products employs 38,484 workers (15 per cent). (Figure 9.8)

Figure 9.6: Technology Composition of Manufactured Exports

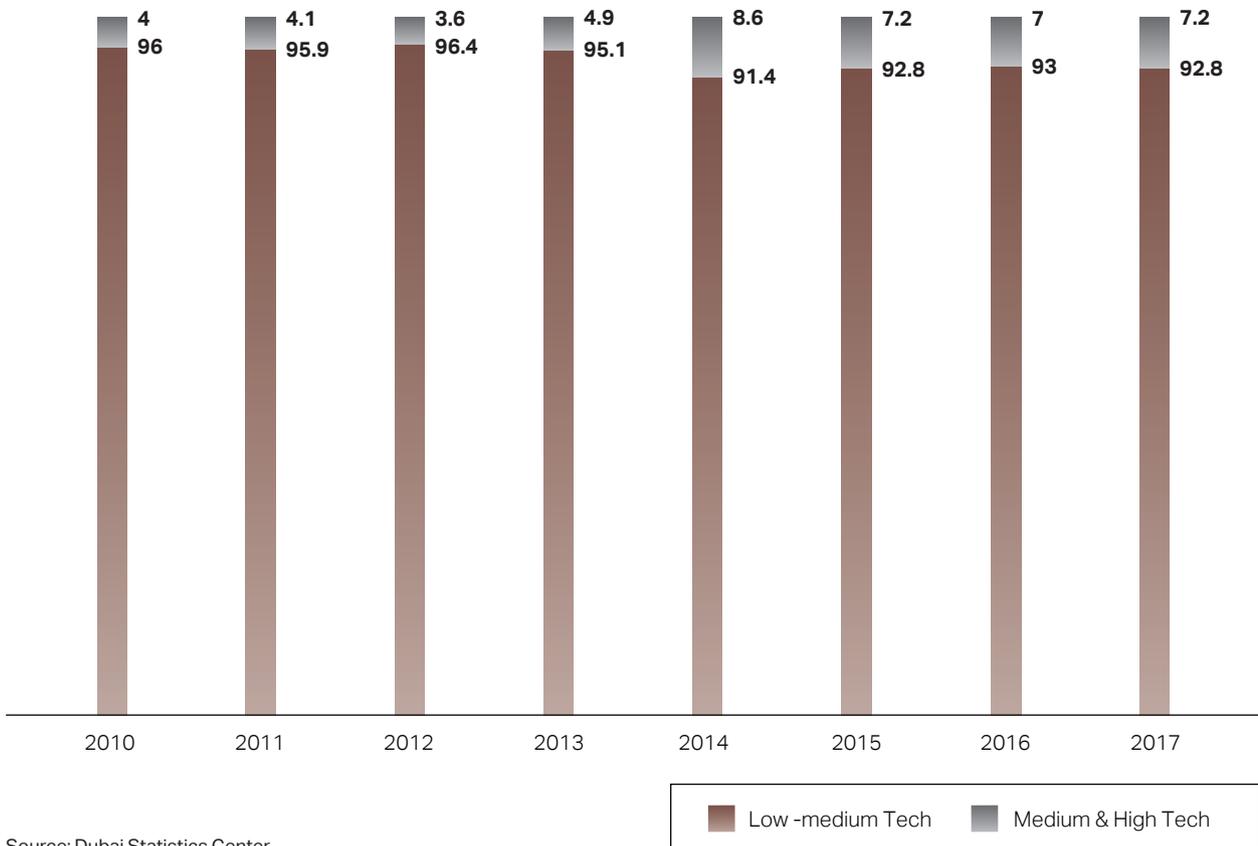


Figure 9.7: Share of Manufacturing in Total Employment in Dubai

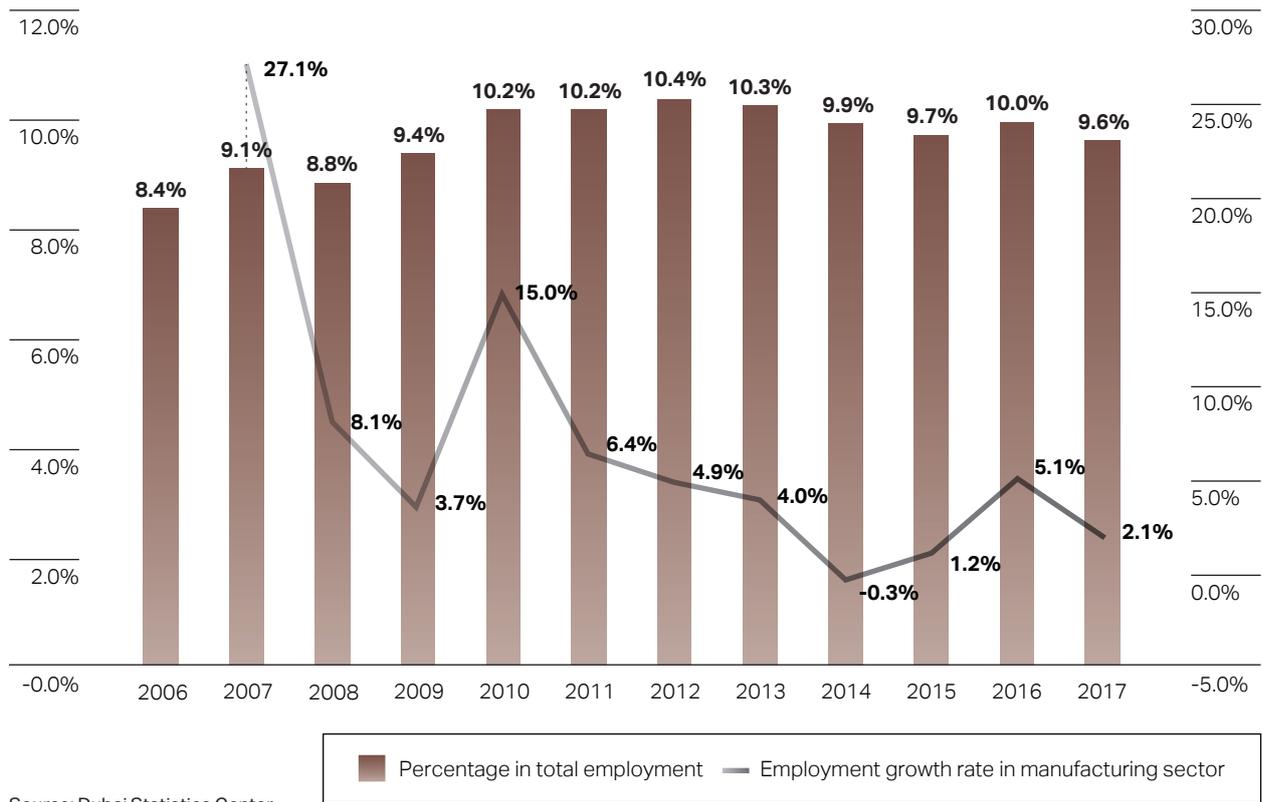
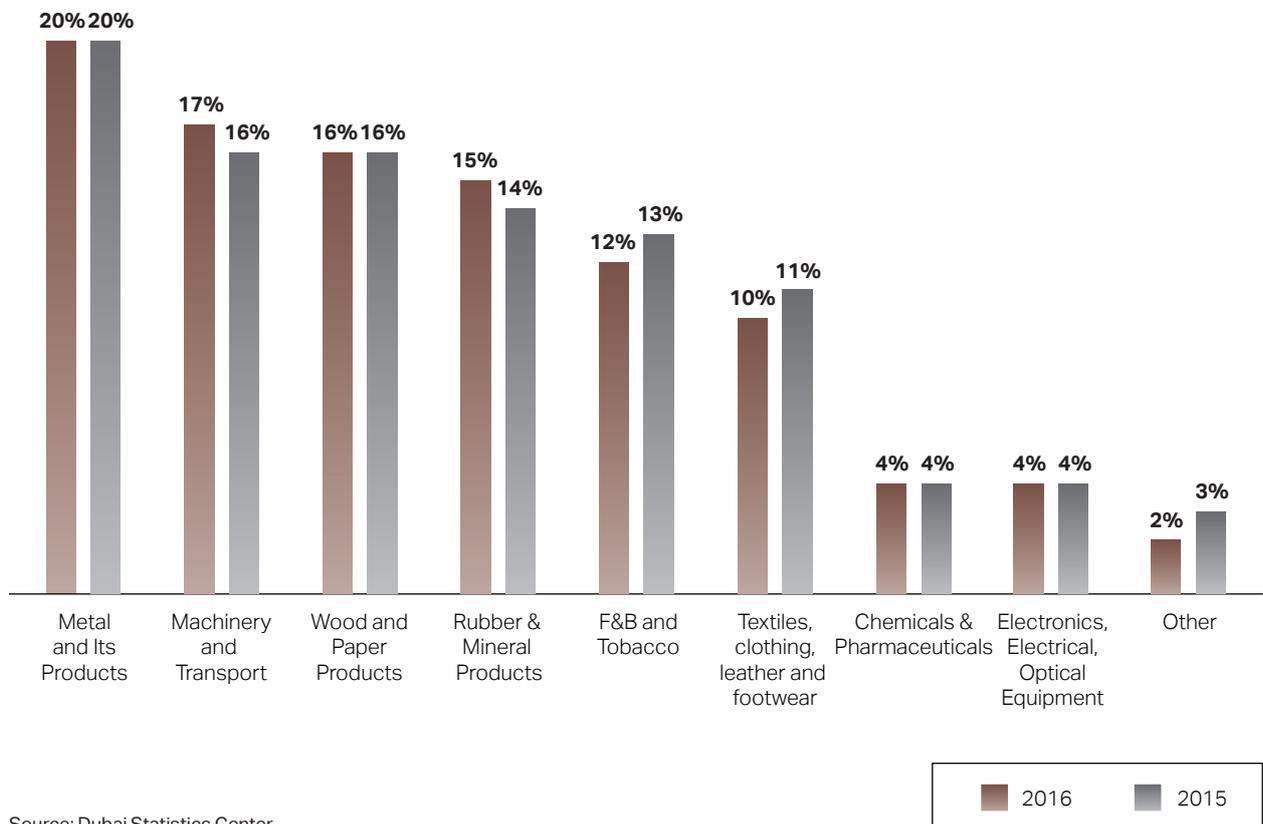


Figure 9.8: Contribution of Main Manufacturing Industries to Total Manufacturing Employment



Foreign Direct Investment in Manufacturing

9.7 Foreign direct investment (FDI) is one of the main drivers of growth in manufacturing value added. It is also an important indicator determining future growth and sustainable development in a country. A large flow of foreign direct investment has numerous benefits, as it allows the manufacturing sector to employ capital-intensive technology, therefore raising labour productivity and gaining competitiveness in global markets.

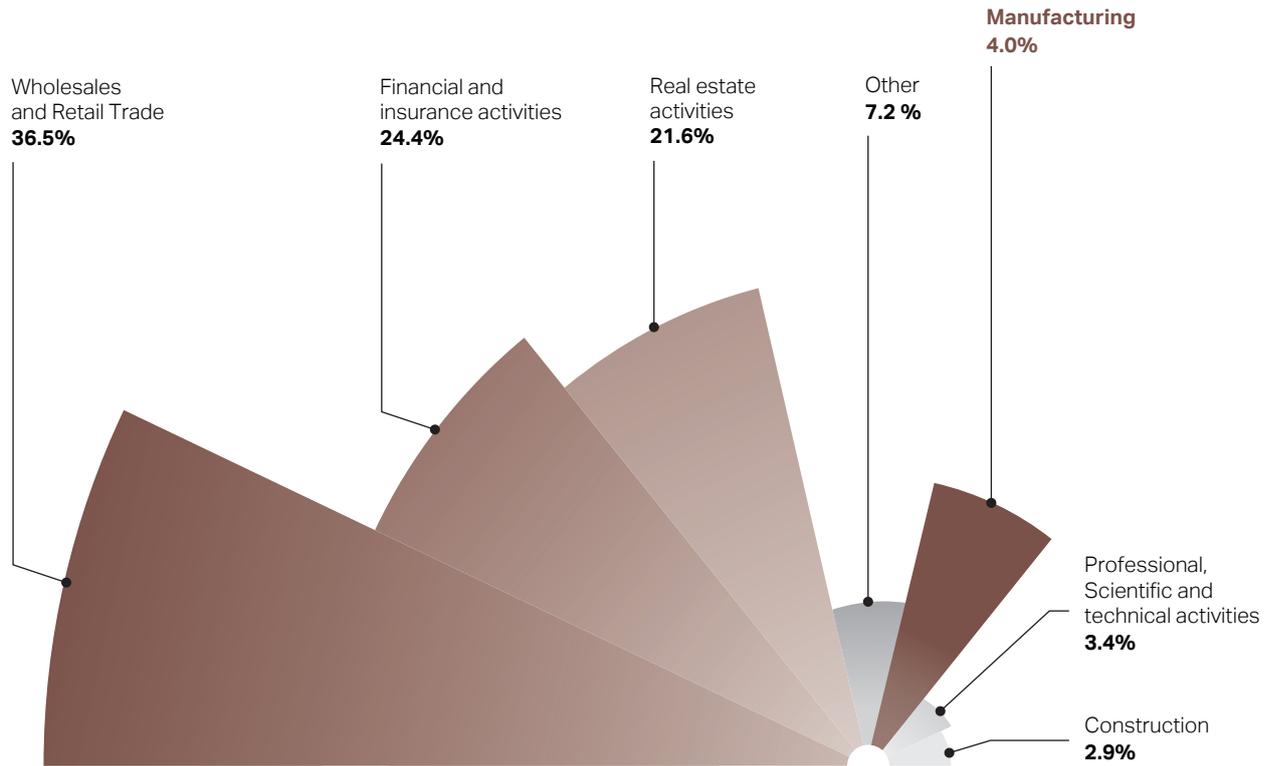
Foreign capital and know-how also play a vital role in the global production network or so-called Global Value Chains (GVCs). FDI in manufacturing can accelerate technological changes and intensify the use of advanced technology to produce high-tech products. This also can be achieved through active participation of manufacturing industries in GVCs, which allow companies in many geographical locations worldwide to cooperate with each other to manufacture one product.

Despite the important role of the manufacturing sector in Dubai's economy, the sector has been less successful in attracting foreign direct investment. Available data on FDI by economic activity shows that manufacturing received 4 per cent of incoming FDI in 2016 and was ranked fifth, lagging behind key economic sectors such as the wholesale and retail trade, financial services and real estate. Nevertheless, it outperformed other sectors such as construction, and scientific, professional and technical activities. (Figure 9.9)

FDI inflows in manufacturing have been rising in recent years, but at a relatively slow pace. The weak growth of the incoming FDI to this sector may be due to investors' preferences for other sectors due to the ease of doing business and to their perception of risks in the sector. (Figure 9.10)

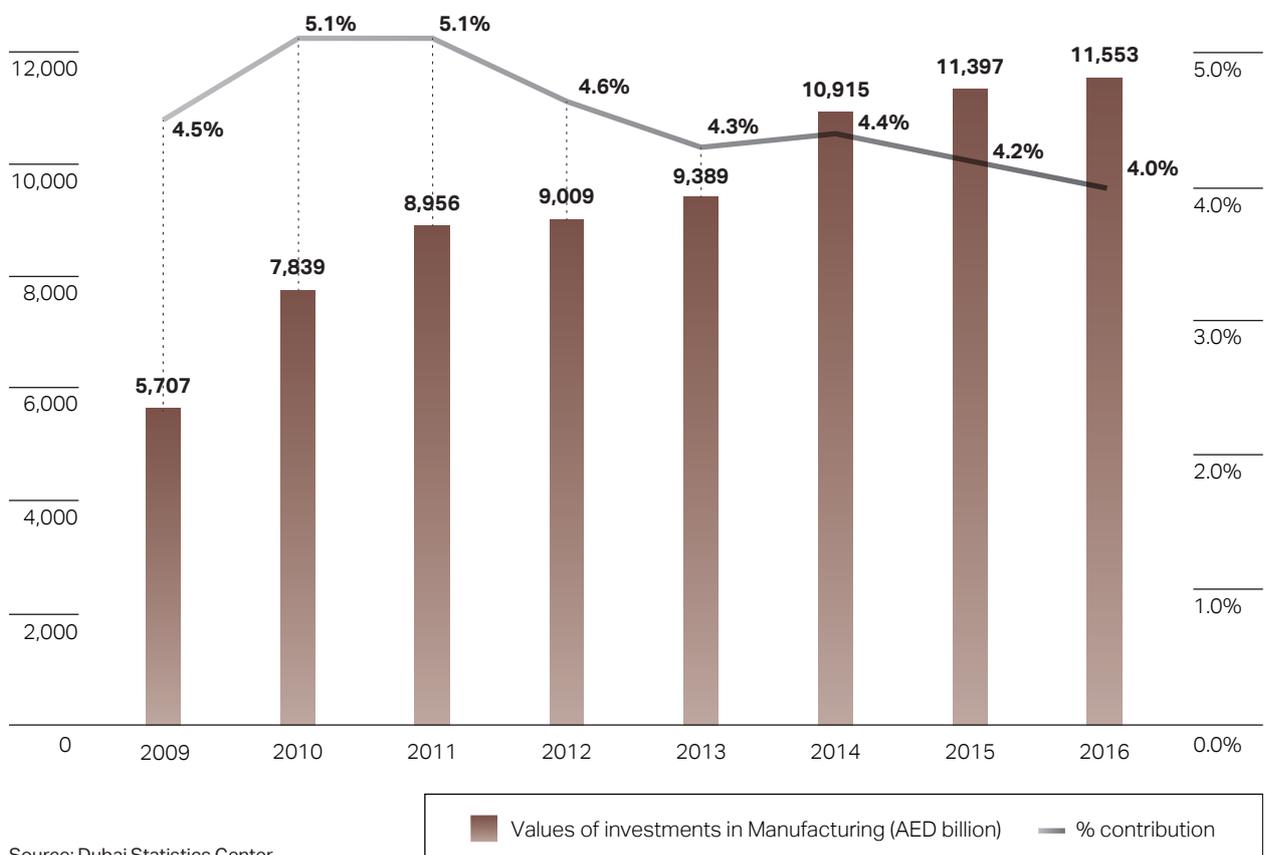
Manufacturing is one of the main employment sectors for the workforce in Dubai, both in direct manufacturing operations and industry-related operations.

Figure 9.9: Share of Manufacturing in Total FDI by Sector in Dubai, 2016



Source: Dubai Statistics Center

Figure 9.10: Trends in incoming FDI to Manufacturing (AED billion)



Source: Dubai Statistics Center

Dubai Industrial Strategy 2030

9.8 Recognizing the importance of stimulating the industrial sector, the Dubai government launched the Dubai Industrial Strategy 2030. This initiative aims at transforming the emirate to become a global platform for knowledge-based and innovative industries in order to achieve the economic growth targeted by the Dubai Plan 2021.

The strategy has laid down 5 objectives: transform Dubai's industrial sector to be a growth engine; to be innovation-based; a home for global businesses; to be environmentally sustainable and support a green economy; and to adopt Islamic standards to manufacture "Halal" products and contribute to Dubai's goal to become the capital of the Islamic economy.

The strategy has identified six industrial sectors to lead its economic transformation: Aviation; Ships; Pharmaceuticals & Medical equipment; Fabricated Metals; Machinery & Equipment; and Consumer goods.

The strategy also has set performance indicators to achieve the following:

- Manufacturing is targeted to generate an additional AED 18 billion in real value added, half as much again as existing manufacturing value added;
- Create 27,000 new skilled jobs in manufacturing;
- Boost exports by AED 16 billion;
- Invest AED 700 million in R&D, catalysing Dubai's transition to a knowledge-based economy. Current

R&D is estimated to be around 0.7 per cent of GDP in 2013, which is below the 2.8 per cent average achieved by the G7 economies, according to OECD data.

There are a number of challenges that Dubai Industrial Strategy has to overcome in order to succeed in achieving its objectives. One of them is to change the technology structure by intensifying the use of technology in manufacturing and reducing the employment of labour, especially non-skilled labour. Such structural change is necessary for the strategy to succeed in increasing the share of high-tech products and achieving a technological upgrade in manufacturing.

The Dubai Industrial Strategy also aims to raise the productivity of its workforce by attracting FDI and know-how into the targeted six strategic industries. This will require a better skilled workforce to provide incentives for technological innovation, which are also integrated with global production networks.

Another main achievement that the strategy has called for is the growth of exports in high-tech products. This can be achieved through an active participation in Global Value Chains (GVCs), which will help adopt international standards and keep abreast of technological advancements, and provide an overall gain in competitiveness in global markets. Dubai's logistic network and its excellent air, sea and land transport capabilities, in addition to its strategic location between East and Western Europe will be instrumental to Dubai's industrial transformation.

