

Morocco: **Telecommunications & IT**

November 2018

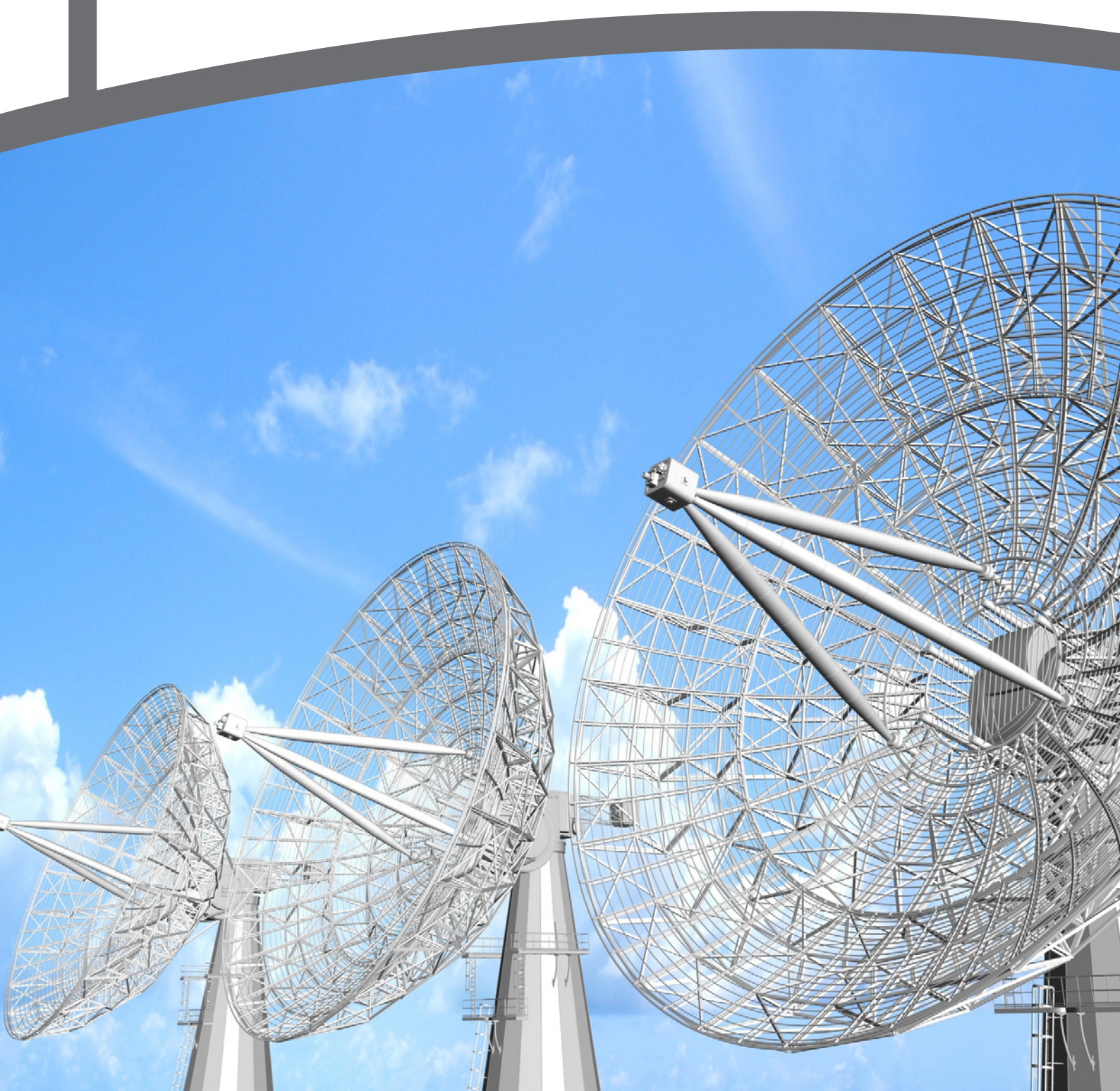


TABLE OF CONTENTS

Map of Morocco.....	4
Executive Summary	5
Industry Structure	6
Market Overview	7
<i>Figure: Share of Net Traffic by Device</i>	<i>8</i>
<i>Figure: Internet Penetration in MENA.....</i>	<i>8</i>
Government Role	9
Mobile Telephony	9
Mobile Broadband & ADSL	10
Fixed Line Telephony	10
Information Communication Technology & Infrastructure.....	10
Offshoring.....	11
E-commerce	11
Key Players	13
Agence Nationale de Réglementation des Télécommunications (ANRT)	13
Maroc Telecom	13
Orange Maroc	13
INWI	13
Morocco Trade and Development Services	13
Vantage Payment Systems (VPS)	14
M2t.....	14
Intelcia	14
HighTech Payment Systems (HPS).....	14
Africa Internet Group (AIG)	15
Made in Morocco.....	15
Economic Overview	16
<i>Figure: Economics Forecasts.....</i>	<i>16</i>
<i>Figure: GDP Per Capita.....</i>	<i>17</i>
<i>Figure: GDP Growth</i>	<i>18</i>
<i>Figure: Inflation.....</i>	<i>19</i>
<i>Figure: Current Account Deficit</i>	<i>19</i>
<i>Figure: Government Budget Balance.....</i>	<i>20</i>
<i>Figure: Unemployment</i>	<i>21</i>
<i>Figure: Doing Business in Morocco</i>	<i>22</i>
Challenges to Industry	23
SWOT Analysis	24



Projections25

Figure: Economic Projections.....25

Figure: Industry Projections.....25

Needs Assessment26

MENA-Wide Overview27

Figure: MENA Internet Market27

Figure: MENA Social Media Penetration29



MAP OF MOROCCO



Source : PRS Group

EXECUTIVE SUMMARY

Morocco retains one of the most advanced telecommunications markets in Africa, featuring a majority-privatised, profitable incumbent telco in Maroc Telecom and three fixed and mobile network operators. However, Morocco is still an emerging economy developing its IT environment and investing extensively in hardware and networking infrastructure. Market growth will be driven primarily by large, government-led projects including new e-government initiatives, as well as investments in telecommunications and banking and financing. The Information and Communications Technology (ICT) sector is a strategic axis of development put forward by the National Pact for Industrial Emergence. It is a sector that employs about 52,000 people and contributes approximately 7% percent to the national GDP.

The Moroccan IT services market will grow 10.3% over the coming years to total US\$ 473 mn in 2017. In the recent past, the data center market has seen the entry of telecoms offering hosting services, which leads to increased competition with established local providers. The increasing maturity of the Moroccan IT services market is reflected in the shares of the various foundation markets. The market share of basic services is declining, while the market share of more advanced services, including outsourcing, managed and data center services, is increasing. Therefore, a strong emphasis will be placed on cost-saving technologies and services, including virtualization, managed services, and hosting and cloud initiatives.

Although Morocco's telecommunications and IT sector is experiencing rapid growth led by dynamic public and private sector entities, and the country is generally perceived as a good destination for foreign direct investment in North Africa, some potential obstacles could negatively impact growth in the sector going forward. Government initiative, human capital issues, and problems with market competition could stand in the way of expansion in the sector in the short and medium term.

The telecommunications and IT sector is one of the fastest growing non-oil sectors in the MENA region, with annual revenues estimated to exceed US\$ 80 bn in 2018. Despite this fact, the MENA region still remains far behind the global average in terms of new technology development and sector competitiveness. Indeed, with the exception of Tunisia, all states in the MENA region remain net importers of technology. However, with an average age of 23, the region is also home to the globe's youngest population a demographic that represents a potential boon for innovative IT companies. As key consumers of technology, and a major force in shaping the IT sector, the MENA's burgeoning youth demographic may well usher in a new era of region-wide innovation and connectivity with various regional players beginning to do so already.



INDUSTRY STRUCTURE

The telecommunications and information technology (IT) industry encompasses the physical infrastructure networks and technology innovations that make the long-distance transmission of information possible. Telecommunications focuses on the transmission of data via radio, telephone, fibre optics, satellites, and the internet. Mobile communications and the internet, together with their respective physical infrastructure and associated technologies, play a central role. Information technology incorporates telecommunications with computing to facilitate the acquisition, processing, storage, and distribution of information. Areas of particular importance include web technologies, bioinformatics, cloud computing, and global information systems.

The telecommunications and IT sector in Morocco is dominated by mobile telephony and the internet. Though the industry was previously dominated by state-owned Maroc Telecom, the privatisation of the operator in 2005 has led to greater private sector involvement across the industry. Maroc Telecom was instrumental in building fibre optic infrastructure for the fixed telephony and fixed broadband markets, and the government remains involved in steering the development of sector infrastructure. Morocco imports the majority of its telecommunications equipment, including mobile handsets, as it lacks the capacity to manufacture hardware for the sector at the present time. Research and development (R&D) and innovation in the sector are limited, although the government has made it a priority to develop private partnerships with foreign investors and universities to increase R&D capacity within the country.

MARKET OVERVIEW

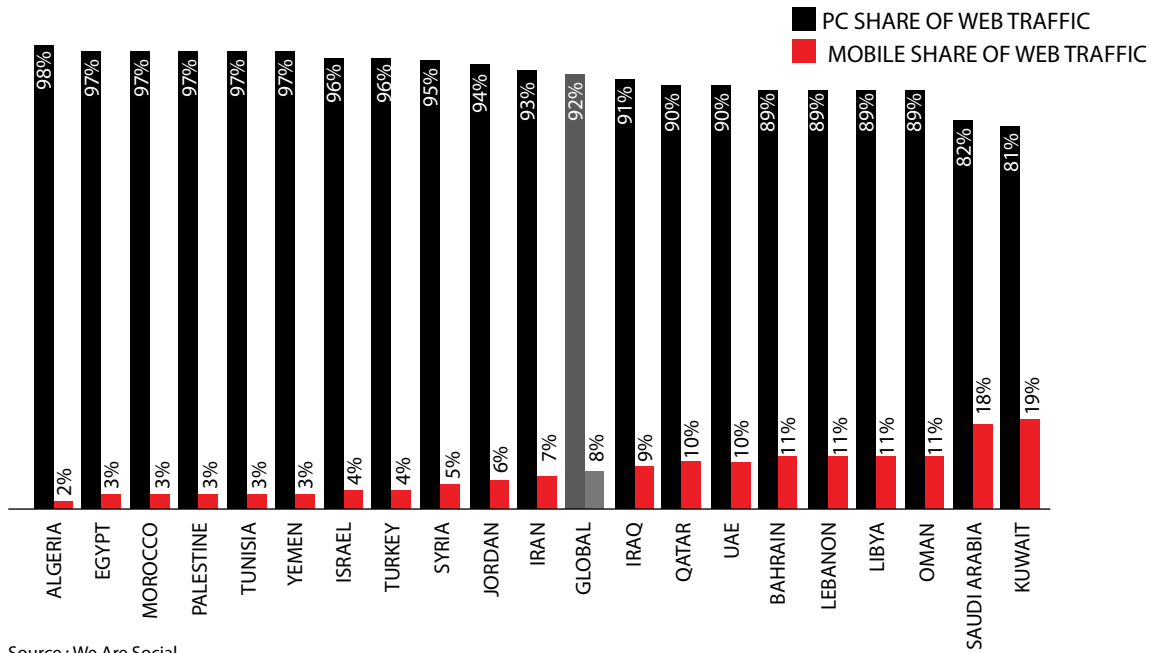
Morocco retains one of the most advanced telecommunications markets in Africa, featuring a majority-privatised, profitable incumbent telco in Maroc Telecom and three fixed and mobile network operators. However, Morocco is still an emerging economy developing its IT environment and investing extensively in hardware and networking infrastructure. Market growth will be driven primarily by large, government-led projects including new e-government initiatives, as well as investments in telecommunications and banking and financing. The Information and Communications Technology (ICT) sector is a strategic axis of development put forward by the National Pact for Industrial Emergence. It is a sector that employs about 52,000 people and contributes approximately 7% percent to the national GDP.

The Moroccan IT services market will grow 10.3% over the coming years to total US\$ 472.4 mn in 2017. In the recent past, the data center market has seen the entry of telecoms offering hosting services, which leads to increased competition with established local providers. The increasing maturity of the Moroccan IT services market is reflected in the shares of the various foundation markets. The market share of basic services is declining, while the market share of more advanced services, including outsourcing, managed and data center services, is increasing. Therefore, a strong emphasis will be placed on cost-saving technologies and services, including virtualization, managed services, and hosting and cloud initiatives.

The National Telecommunications Regulatory Agency (ANRT) reported in its Q3 2017 release that internet use in Morocco, driven by increased smartphone usage, has achieved an annual growth rate of 33.3% and a penetration rate of 64.7%. The number of Internet subscribers reached 22.56 mn in the third quarter of 2017, mainly propelled by the growth of mobile use, which recorded an annual increase of 35.2% to 21.2 million subscribers at the end of September 2017. Users of 4G internet stand at nearly 6.46 million, recording a 38% increase per quarter. Meanwhile, the ADSL subscription rate also recorded quarterly growth of nearly 0.45%. Mobile phone usage recorded an annual growth of 2.1% and a penetration rate of 127%, reaching 44.25 million subscribers at the end of the third quarter of 2017. In terms of charges, the price of mobile communications, measured by average revenue per minute, stood at MAD 0.23 per minute at the end of the quarter. The average revenue per Internet customer was MAD 25 per month at the end of the same quarter against MAD 24 HT percent month the previous year. For postpaid mobile, it fell from 621 minutes per month at the end of September 2016 to 551 minutes month to the end of September 2017, due to declining traffic.

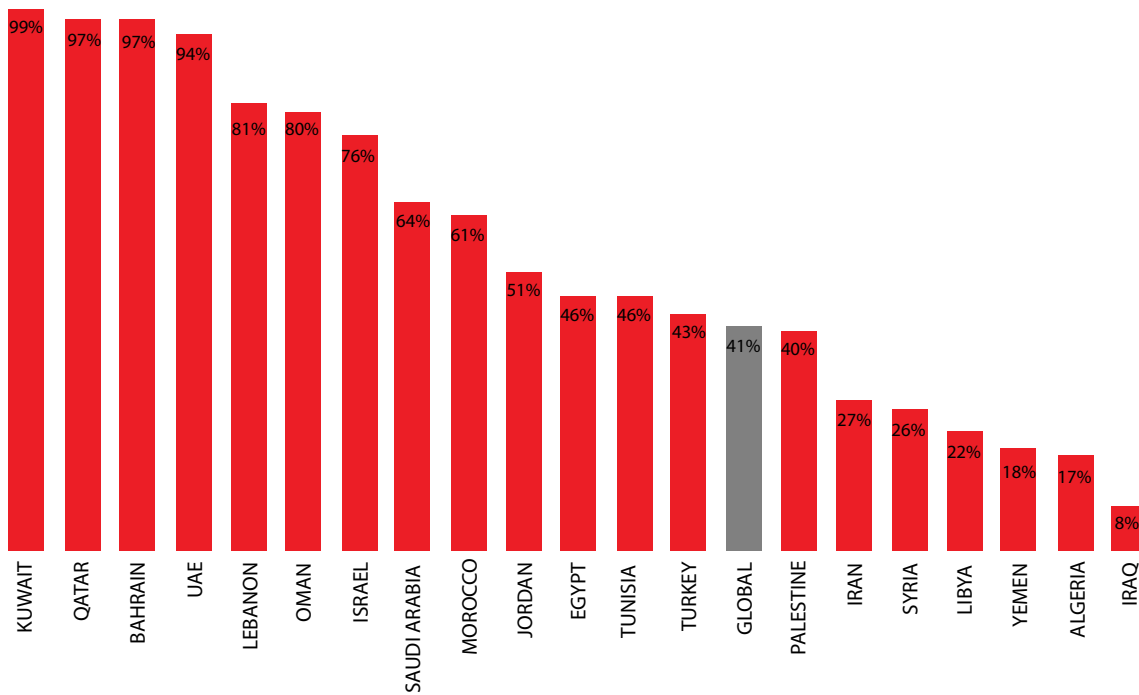
Morocco has a robust telecommunications and IT sector, supported by a strong regulatory framework, active competition, and foreign direct investment. Given its rising internet and mobile penetration rates and geographical proximity to Europe, Morocco's IT services sector has attracted significant private investment over the last decade. One of the biggest segments in the sector, IT off shoring and call centres, in particular, has seen steady growth over the last decade. E-commerce and mobile telephony and internet are also thriving on the back of the introduction of 4G services in the Moroccan market in 2015. Morocco was also named Africa's third most e-commerce friendly nation in 2014.

Share of Net Traffic by Device



Source : We Are Social

Internet Penetration in MENA



Source : We Are Social

Government Role

The Moroccan government aims to position the kingdom among dynamic emerging countries in information technology. It is within this framework that the national strategy "Numeric Morocco 2013" was launched in 2009. The objectives of this plan, among other things, were widespread use of ICT, the computerization of subject matter experts, the development of ICT sectors, and the promotion of centers of excellence. By the end of 2016, ICT accounted for 58,000 jobs in Morocco and a total sector income of more than US\$ 6.7 bn. Integrated project consultants for offshoring areas have encouraged the establishment of businesses dedicated to research and development. Business opportunities are the most promising with SMEs which are still the most poorly equipped businesses. Opportunities also exist in innovative products in business process outsourcing, supply of software and software packages, integration of solutions in accounting and financial management, management services, customer relationship management (CRM) and enterprise resource planning (ERP) software. To address weak research and development among Moroccan IT companies, the Ministry of Industry, Trade, Investment and Digital Economy now requires telephone companies to give one percent of their total income to fund research and innovation.

The Moroccan government began the process of privatisation in the telecommunications and IT sector in 1998 when it passed the Post Office and Telecommunication Act law 96/24. The law eliminated the monopoly in the telecommunications and IT sector, and opened it up to private investment. This decision helped spur the success of partially state-owned Maroc Telecom, which was gone on to become one of Africa's most important telecom players in recent years. It also created a new independent regulatory authority, the National Telecommunication Regulatory Agency (ANRT). This regulatory body oversees the execution of policy, the application of laws and regulations, and is responsible for resolving disputes arising between actors within the sector. The ANRT has played a key role in promoting competition and efficiency in the telecommunications market, most recently with a decision to enforce the requirement for infrastructure sharing between partially state-owned Maroc telecom and the other providers operating in the country.

The other important government organisation in the telecommunications and IT sector is the Department of the Post, Telecommunications and Information Technology (DEPTI), which is affiliated with the Ministry of Industry, Commerce, and Telecommunications. It guides the creation of a national IT strategy and policy, in addition to overseeing the drafting of the five-year development plans via which the government manages development in the sector. The Moroccan government has demonstrated its commitment to expanding the telecommunications and IT sector by setting realistic goals and implementing sound initiatives. Officials have also addressed the technological inadequacies in basic education, the lack of local content and need to bring more administrative functions online via the implementation of e-government programmes.

The overall development of the sector has been guided by a series of development plans produced by the NTRA known as Notes de Orientation Générale (NOG). The first of these directives was implemented between 2004 and 2008 and focused on market liberalisation, while the most recently completed NOG spanning 2010-2013 put an emphasis on the need to attract private investment and continued implementing the government's Digital Morocco 2013 plan, which outlined the expansion of e-government services. The current NOG will run through 2018 and will focus on new areas of growth for the industry, including the expansion of data services.

Mobile Telephony

Three operators today share the telecom market: Maroc Telecom (42.25%), Orange (29.64%) and INWI (28.11%). The total income of these telecommunications companies represents more than 75% of total industry revenue. Mobile telephony is the most robust segment of Morocco's telecommunications and IT sector. An increasingly competitive market landscape has promoted innovation and service development in the segment. Morocco's mobile phone user penetration rate is above 100%. The number of subscribers reached 48 million in March 2016, an increase of 3.21% over the previous year. It is believed that the use of prepaid sim cards on multiple networks give the appearance of singular customers operating multiple devices.

Mobile Broadband & ADSL

The connection rate of households to the internet was 58% in 2016, a significant increase from 42% in 2014. The number of Internet users was estimated at 18.8 million users. The introduction and extension of mobile broadband services based on 3G and LTE technologies has gone far to improving access nationally. Mobile internet as of June 2017 accounted for about 93% of all internet connections, leaving Maroc Telecom's DSL service with most of the remaining market. This has been helped by the excellent connectivity to international fibre cables.

Despite regulatory efforts to enforce LLU and wholesale pricing the company has yet to provide a pricing structure for access to its networks. Nevertheless, a small number of operators, including Inwi and Orange Morocco, have begun to offer competing DSL services, albeit limited in reach. Despite these market limitations and Maroc Telecom's near monopoly, Morocco has developed some of the lowest broadband prices and highest penetration rates in Africa.

The dominance of mobile internet access is likely to continue given the improvements in LTE reach and capabilities, and the preference among consumers to adopt mobile solutions for both voice and data. To accommodate the increasing amount of internet traffic, fibre optic national backbone networks and international connectivity are being expanded. A National Broadband Plan was launched in 2012, aiming to provide fixed or mobile broadband access to the entire population by 2022.

Maroc Telecom has spearheaded the launch of 4G services in the country and in other markets in Africa, including Gabon. The auction to allocate 4G privileges raised US\$ 200 mn, with Maroc Telecom winning the most sought-after radio frequencies with an MAD 1 bn bid. The other two major operators each paid MAD 500 mn for 4G access privileges. In a bid to open up the internet market in Morocco, ANRT has ordered Maroc Telecom to engage in infrastructure sharing with its competitors, a decision that Maroc Telecom is currently resisting due to its dominant market position, where it enjoys a virtual monopoly over ADSL services. As of August 2016, it remains unclear if and when Maroc Telecom's competitors will join the ADSL market.

Fixed Line Telephony

Morocco's fixed line subscriber base is down 3.67 percent per year and stands at 2.04 million, with a penetration rate of 5.87 percent at the end of Q3 2017. Fixed telephony contributes negligibly to the sector, and its role has been steadily decreasing in step with the rise of mobile voice and broadband services. In 2014, fixed line customers declined by 15% to 2.39 mn users while ARPUs rose by 11% to MAD 0.75, from MAD 0.83 at the end of March 2014 on sinking demand. Prior to 2007, Maroc Telecom controlled the fixed telephony market, but Meditel and INWI now offer fixed line services following the passage of privatisation regulations. Despite declining fixed line subscriptions, fixed line ARPU per month has risen from US\$ 10.67 to US\$ 11.41.

Information Communication Technology (ICT) & Infrastructure

ICT is a rapidly growing sector in Morocco, with the government and private enterprises demonstrating a strong commitment to development in this area over the past several years. The government in particular has been investing consistently in infrastructure projects that will support the expansion of the sector in the coming years. While the majority of ICT projects in Morocco are currently in the infrastructure build out phase, rapid growth is expected in 2016, and over the next several years, with the CAGR predicted to reach 10.3% through 2017, bringing the industry's total value to US\$ 472.4 mn by 2017. As the sector grows, the support, installation, and integration segments will witness the most rapid expansion.

In 2015, Morocco gained the designation of fastest rising ICT economy in the world, moving up 21 places to 78th in just a year according to rankings in the 2015 Global Information Technology Report. Morocco's strengths include ICTs accessibility (24), the use of ICT by the government (41), social impact of ICT (64), individual use (70) and political and regulatory environment (71). Its weaknesses include business environment and innovation in ICT (83), infrastructure (87), the use of ICT in business (105), skills (110), and the economic impact of ICT (120).

The IT sector remains concentrated around Casablanca and Rabat with the Casablanca Technopark serving as the largest IT business cluster complex in the country. In late 2014, the Moroccan and Indian governments signed an

agreement providing for the opening of an India-led ICT research centre in Casablanca Technopark. The centre will help transfer Indian ICT expertise into the Moroccan market, with an emphasis on training Moroccan students for entry into the ICT workforce. Five other IT parks are being constructed in Fez, Oujda, Agadir and Marrakech. Particular segments, such as Business Process Outsourcing (BOP), are expected to experience growth following the Moroccan government's passage of a privacy law meeting European Union standards.

The government has invested significant amounts in ICT infrastructure over the last decade. In 2009, 2.7% of the government budget was allocated to ICT development. Prior to privatisation, governmental investment in the sector went hand in hand with public ownership of Maroc Telecom. It financed a US\$ 1.26 bn loan to the operator for the upgrading of its mobile and fixed telephony networks, in addition to the construction of a fibre optic cable to France and via the Western Sahara to Mauritania.

Offshoring

Given its geographical proximity to Europe, low cost labour force and high internet and mobile penetration rates, Morocco has built a respectable ICT offshoring segment, and has great potential to expand this area in the coming years. Offshoring in Morocco encompasses computer and IT development, Business Process Outsourcing (BPO), Customer Relationship Management (CRM) and software design services. CRM and BPO constitute the largest segment of the sector at 60% to 70%, and are expected to witness robust future growth. As of 2016, the offshoring sector employs more than 120,000 workers of which 68,000 work in call centers. Call centers posted an 8.8% growth during the first three quarters of 2017. Nearly 70% of all French corporate call centers are located in Morocco.

Offshoring in Morocco has been driven by government investment, private initiative, and support from international programmes. The Rockefeller Foundation's Digital Jobs Africa programme, launched in 2013, has targeted several African economies, including Morocco, for investment. The programme aims to extend options for remote work to areas suffering from underemployment, with a particular focus on employing youth. This programme should help build upon the efforts of the Moroccan government, which are centred in the country's urban areas, by providing access to ICT infrastructure and offshoring opportunities in more remote locales, and may be able to help relieve unemployment and underemployment among certain segments of the country's youth if successful.

Morocco enjoys a comparative advantage in providing IT offshoring services to nearby European markets that it could leverage into significant contributions to GDP. BPO has the potential to add 0.3% each year to GDP growth, lower the country's trade deficit by 35%, and lead to the creation of 100,000 new jobs. Morocco's multilingual and low cost work force, which commands an average monthly salary of between US\$ 180 and US\$ 192, has been an important contributing factor in the rapid development of the offshoring sector in the country.

E-commerce

E-commerce is a strong growth area in the Moroccan economy, with more than 200 online retail sites currently associated with the country's Maroc Telecommerce platform, encompassing services from food and clothing shopping to the purchase of insurance and electronics. In 2014, Morocco was named Africa's third most e-commerce friendly nation, behind Kenya and Senegal, by the Africa Internet Group. The Group's report also named Casablanca as the continent's number one emerging financial hub, with strong potential to grow into a major centre of commerce between Africa and Europe.

Morocco was also ranked 72nd out of 130 countries in the 2014 UNCTAD E-Commerce Index, which examines countries' ability to process online transactions by measuring factors such as internet usage, data secure servers, credit card use, and the quality of home postal delivery services. Morocco's performance in international rankings reflects the great strides in e-commerce that the country has witnessed in the past several years. Online retailing has taken off on the back of rising internet usage and expanded access to online payment systems.

The ending of a monopoly by Maroc Telecommerce over online payment systems in 2014 after 14 years has helped bolster growth and competition in the segment. Several new payment systems have emerged in the wake of this decision. The end of the monopoly came about following popular protest from leading entrepreneurs in the e-commerce sector that signed a petition, organised a sit-in, and filed a protest with the country's Competition Commis-



sion before achieving their goal. The liberalisation of this sector has helped foster stronger customer service and better functionality, driving the expansion of e-commerce in the country.

Pioneering online payment software companies such as HPS, now a multi-national operation, and newer international, African, and local online retailers have fostered a vibrant e-commerce sector in Morocco. Africa's leading online retailer, Berlin-based Kamyu, launched operations in Morocco in early 2015. The eBay-like retailer will provide an online platform for buying and selling of goods using secure payment and delivery methods. Jumia Maroc is another rapidly growing online retailer, serving a similar purpose to Amazon in other countries. Jumia has seen rapid growth in Morocco since its launch in 2012, on the back of strong customer service and security practices. Jumia's parent company, Rocket Internet Afrique, launched an online food delivery platform, HelloFood, in Morocco in 2013. In early 2015 a local site, Made in Maroc, was launched to showcase goods produced in the country. Dubbed Africa's largest e-commerce site, Made in Maroc features over 420,000 products from across the country.

KEY PLAYERS

Agence Nationale de Réglementation des Télécommunications (ANRT)

ANRT oversees the preparation of legislation and regulations governing Morocco's telecommunications sector. ANRT works with various government bodies to facilitate regulation, competition, and innovation in the telecommunications sector. ANRT is vested with legal, technical, and economic regulatory powers. ANRT has played a central role in the development of a robust legal framework to govern the sector and license allocation and bidding procedures, most recently overseeing the allocation of 4G licenses to the country's major operators and mandating infrastructure sharing between them to promote competition. ANRT is also responsible for monitoring competition and ensuring positive relations between major players in the sector, and for facilitating the development of the country's ICT sector.

Maroc Telecom

Maroc Telecom (MT) is the largest telecommunications firm in Morocco, controlling the majority of market share of mobile, fixed telephony and internet services. The former historical state-owned operator, MT was opened to private capital in 2000. The Moroccan government still owns 30% of the company's shares, but the Abu Dhabi-based company Etisalat bought a 53% stake in Maroc Telecom (formerly held by French company Vivendi) in 2013. Maroc Telecom has expanded considerably over the past two decades, both in Morocco and abroad, and has shown itself to be a dynamic player in the Moroccan and African telecommunications industries. With existing subsidiaries in Mauritania, Gabon, Burkina Faso and Mali totalling 17 mn subscribers, Maroc Telecom extended its reach in sub-Saharan Africa in 2015, with new holdings in Benin, Central African Republic, Ivory Coast, Niger, and Togo. In 2017 Maroc Telecom expanded its FttP service and launched VoD service. Maroc Telecom has undergone a strategic review following its acquisition of Etisalat's mobile businesses in several markets in the region. These additional international markets are providing a welcome boost to the company's overall revenue.

Orange Maroc

Orange Maroc was known previously as Médi Télécom or Méditel until December 2016. It is one of three licensed telecommunications operators in Morocco and has the second largest market share after Maroc Telecom. The company began operations in 1999 and is based in Casablanca. Orange is a multi-service operator offering consumer and business solutions using various technologies including GSM (900 MHz), WIMAX, GPRS and recently was one of the first operators in the world to offer HSDPA mobile 3G+ internet solutions. The company has been ranked the 12th largest company in Morocco.

INWI

INWI was formerly known as Wana. INWI is a telecommunications company in Morocco and holds the third largest market share among the country's three telecom majors. It is a subsidiary of the group SNI and the Kuwaiti group Zain. It launched operations early 2010 after winning the third GSM licence the previous year. Despite INWI's relatively new entry, it has experienced strong growth. Four months after it started offering GSM-based services, the company counted one million subscribers. Notably, INWI was the first operator in Morocco to offer flat rate calls to all networks for prepaid customers and to launch unlimited calling plans for postpaid packages. It was also the first mobile operator to offer 3G services and boasts the largest 3G mobile internet network coverage in the country. INWI, along with Morocco's other major providers, has recently introduced 4G services. In 2017 the company announced it would integrate satellite services from the Intelsat EpicNG platform into its network.

Morocco Trade and Development Services

MTDS is a technology solutions provider to individuals, businesses and institutions in Morocco and the developing world. MTDS was at the forefront of establishing Internet access in Africa and promoting free market competition within the Internet services sector. MTDS engineers were essential to the inauguration of eight Internet Gateways in

Sub-Saharan Africa from 1997-2002 financed by the US Government sponsored Leland Initiative, a five-year and US\$ 15 mn effort to extend full Internet connectivity to twenty-one African countries. In more recent years, the company has focused its expertise on applying technology based solutions to social challenges including improving the quality and relevance of education, promoting knowledge sharing among civil society organizations, raising awareness on human rights via innovative multimedia content and using online training solutions to update institutional partners' skills. MTDS has demonstrated a unique expertise in applying the latest Web and mobile applications for civic education, youth empowerment and civil society strengthening. MTDS has a solid reputation for delivering first class technical services that respect international norms and standards (Internet access, computer hardware, network solutions, web development, domains & hosting, and multimedia content development) combined with results-oriented human development and change management strategies. MTDS uses participatory project planning techniques to design and deliver relevant services in partnership with local organizations. It develops technology solutions that are grounded in a careful consideration of its partner's needs and capacity.

Vantage Payment Systems (VPS)

Launched in January 2014 soon after the ending of Maroc Telecommerce's monopoly over online payments, VPS's PayZone was the first competitor to the long-established player in the local market. Founded in 2011, VPS was a prepaid debit card provider, which later expanded to offer salary, gift, or fidelity cards, as well as mobile payments and money transfer services. VPS is actively engaged in improving technology and security, and emphasizing customer service in order to better compete in a more competitive market. PayZone allows customers to pay via web or mobile with national and international credit cards, prepaid gift cards, club cards, or cash, and offers various payment plans, including instalment, recurring, and payment on delivery. VPS also works with retailers to develop e-commerce solutions from the ground up.

M2t

M2t is a Moroccan company specialised in secure online payments that has been operating for over 12 years. M2t's patented payment facility management system serves over 1,560 companies in Africa and Europe, including Morocco. The company is best known for its Proximo Tasshilat network of shops that provide facilities for bill payment, transportation tickets and phone recharging. The network now has over 1,300 locations in 300 villages and cities. M2t created AmanPay, the third major player in Morocco's online payment market, following the liberalisation of the segment in 2013. AmanPay is managed by Amine Azariz, a pioneer in Morocco's start up scene and the cofounder of one of Morocco's first major start up companies, an online bill payment platform. AmanPay's goal is to offer American-standard customer service on the model of Amazon, and a product featuring simple integration that is easier to use than existing competitor technology. The company wants to help offline retailers go online and convert some of Proximo Tasshilat's clients, such as Jumia, to AmanPay.

Intelcia

Intelcia, a privately held Moroccan firm, is one of the largest off shoring companies operating call centres and offering technical support, CRM, and survey and polling services. The firm has two installations in Casablanca and a commercial office in Paris. As part of its ambitious expansion strategy, the firm intends to acquire English-language call centres in Egypt, Italian-language call centres in Tunisia and German-speaking call centres in Eastern Europe in the future. As of September 5, 2016, Intelcia Group S.A operates as a subsidiary of Altice N.V.

HighTech Payment Systems (HPS)

Founded in 1995 in Morocco by Mohamed Hourani, HPS is a specialist Cards and Payments Software Company that currently serves over 320 financial institutions in some 70 countries. The company has offices in the United States, France, and the United Arab Emirates in addition to its Casablanca headquarters. HPS provides electronic payment solutions for financial institutions, processors and national switches all around the world, and pioneered electronic payments in the Moroccan market. The company's all-in-one platform PowerCARD is used by more than 320 issuers, acquirers and national switches and processes any card type (credit, debit, prepaid, loyalty, corporate and fuel) via any channel (ATM, POS, internet, mobile) for any kind of merchant. Africa is currently the company's top export market for its payment services.



Africa Internet Group (AIG)

Founded in 2012, AIG is the leading internet group in Africa with operations in 26 markets, including Morocco. Since its founding, AIG has established 71 internet companies in the areas of online retail, online food ordering, online marketplaces, online real estate marketplaces, and several others. Three of AIG's most successful products include Jumia, an Amazon-like retailer that has found success in major African and Middle Eastern markets, including Morocco; Kaymu, an eBay-like marketplace launched in Morocco in 2015; and HelloFood, an online ordering platform launched in 2012 in Casablanca and Rabat. AIG is a rapidly-expanding company that is set to have a major impact on the e-commerce landscape in Africa going forward.

Made in Morocco

Made in Morocco is an e-commerce trading platform launched in early 2015. The site, which features locally produced products from across the country, boasts over 420,000 offerings by 217 manufacturers, including foodstuffs and crafts. The site, which features only locally-produced products, is slated to help bolster support for Moroccan-made goods and supply demand for the country's famous offerings both domestically and internationally.

ECONOMIC OVERVIEW

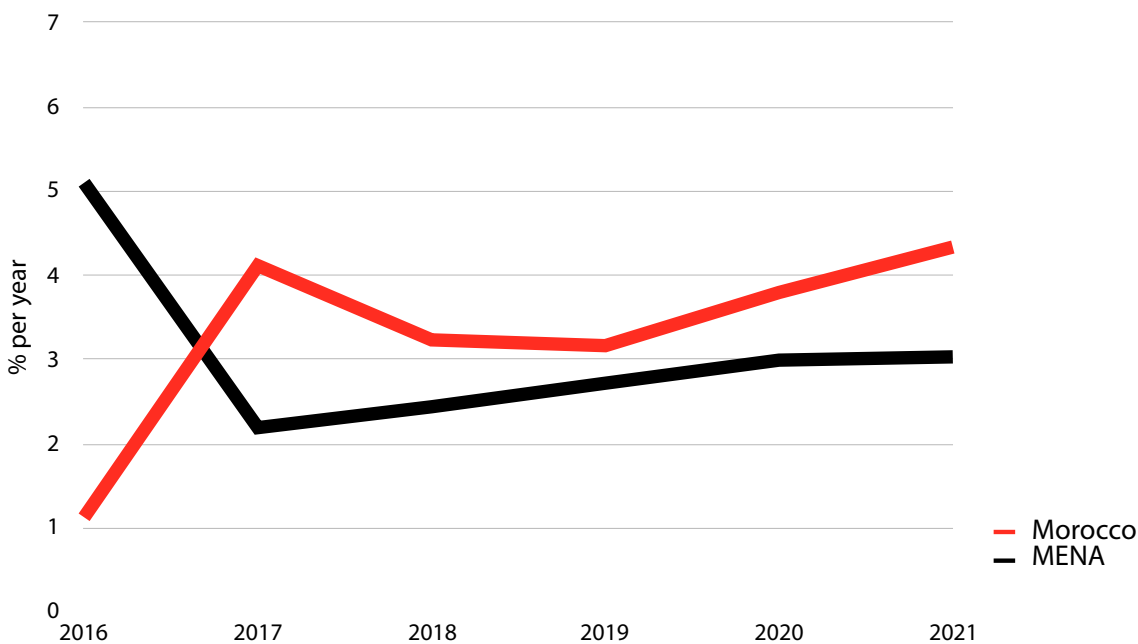
Economic forecasts

Subject Descriptor	Units	2016	2017	2018	2019	2020	2021
GDP, constant prices	% change	1.2	4.1	3.2	3.2	3.8	4.3
GDP, current prices	US dollars (bn)	103.3	109.3	118.2	122.5	130.4	139.0
GDP per capita, current prices	US dollars	2,996	3,136	3,355	3,441	3,627	3,827
Total investment	%, GDP	32.6	33.7	34.4	35.4	35.9	36.0
Inflation, average consumer prices	% change	1.6	0.8	2.4	1.4	2	2
Volume of imports of goods and services	% change	12.3	6.7	5.0	4.5	3.8	3.6
Volume of Imports of goods	% change	12.6	5.8	6.4	4.89	5.3	5.3
Volume of exports of goods and services	% change	6.2	13.1	7.7	5.4	4.3	2.4
Volume of exports of goods	% change	8.0	14.2	9.9	6.6	6.1	3.02
Unemployment rate	%, total labour force	9.9	10.2	9.5	9.2	8.8	8.5
Population	Millions	34.5	34.9	35.2	35.6	36.0	36.3
General government net lending	%, GDP	-4.5	-3.6	-3.2	-3.0	-2.7	-2.5
General government gross debt	%, GDP	64.9	65.1	64.4	63.8	62.8	61.5
Current account balance	%, GDP	-4.2	-3.6	-4.3	-4.5	-4.3	-3.6

Source: IvMF

Economic growth slowed into the third quarter of 2017, but was still up strongly on the previous year. Morocco's economy grew 3.8% in the third quarter of 2017, after a slow growth of 1.3% in the same three-month period of 2016, according to the country's High Commission for Planning (HCP). However, this was a slower pace of growth than the 4.8% recorded in the second quarter. The Haut Commisariat du Plan (HCP), the government agency that released the figures, had said that growth would slightly in the third quarter although it had forecast 4.1% growth. The HCP said growth was mainly due to a rise in agricultural output by 14.5% in the third quarter, a sharp jump from a 13.6% drop in Q3 2016 but down from Q2's 17.4% surge that helped by heavy rainfall after a severe drought in 2016. Industry turnover also grew by 2.7% compared with 0.8% the year before, while services sector slowed down this year from 3.1% to 2.6%. The International Monetary Fund IMF used its biannual world economic outlook in October 2017 to cut its outlook for 2018 growth to 3.0% from the 3.8% it forecast in April. It does still expect growth to accelerate gradually over the medium term, subject to improved external conditions and steadfast reform implementation. It sees GDP growth accelerating to 4.0% in 2019 and 4.2% in 2020. Morocco's sound macroeconomic policies and reform implementation have helped improve the resilience of the economy, the IMF said in January 2018 it had completed the third and final review of its Precautionary Credit Line (PCL). The Moroccan authorities asked for the US\$ 3.6 bn PCL in 2016 to reassure financial markets but has not drawn on the credit line, which expires in July 2018. Growth rebounded in 2017 to a likely 4.8% from 1.2% in 2016.

GDP growth

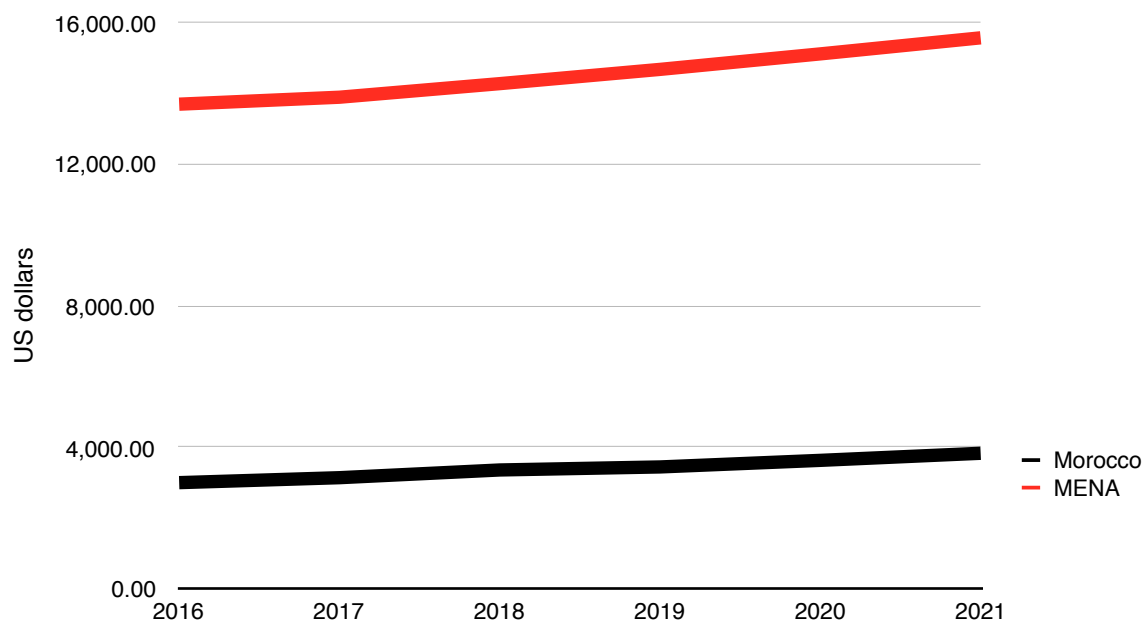


Source: IMF World Economic Outlook, 2018

While the boost to growth from farming was welcome, the authorities will be looking for a boost to non-agricultural activities. Economic indicators point to stronger non-agricultural activity in the second half of 2017, according to the IMF. The Moroccan authorities have taken strong policy actions to reduce the vulnerabilities of the economy with a package of reforms. In its third review of the Precautionary Credit Line (PCL) arrangement that the government has agreed with the IMF, the fund said Growth rebounded in 2017 and is expected to accelerate gradually over the medium term, contingent on improved external conditions and continued implementation of reforms. Underlying data showed the other forces behind the continued strong growth in the third quarter. In the three months to September, tourist arrivals were around 8% higher than a year earlier. Meanwhile, recent investments into the country's manufacturing sector are supporting a period of strong export growth. The government has increased efforts to diversify the economy by encouraging industrial manufacturing, especially export-driven sectors such as cars, aeronautics and electronics. Those efforts have paid off with the favourable economic climate attracting foreign

investment.. Over the medium term, the reforms designed to make the tax system more efficient and equitable should be stepped up, notably by broadening the tax base and combating tax evasion, it said. These efforts would provide more room to support investments in infrastructure, health, education, and social protection. Morocco has enormous scope for “catch-up” growth. GDP per capita stood at just over US\$ 3,300 in 2014. This is equivalent to just 6% of the corresponding figure for the US and below the level in its MENA neighbours and indeed most other emerging markets. Morocco also has a fast-growing population. Based on projections by the United Nations, Morocco’s working-age population is set to grow by about 0.8% a year over the next 15 years.

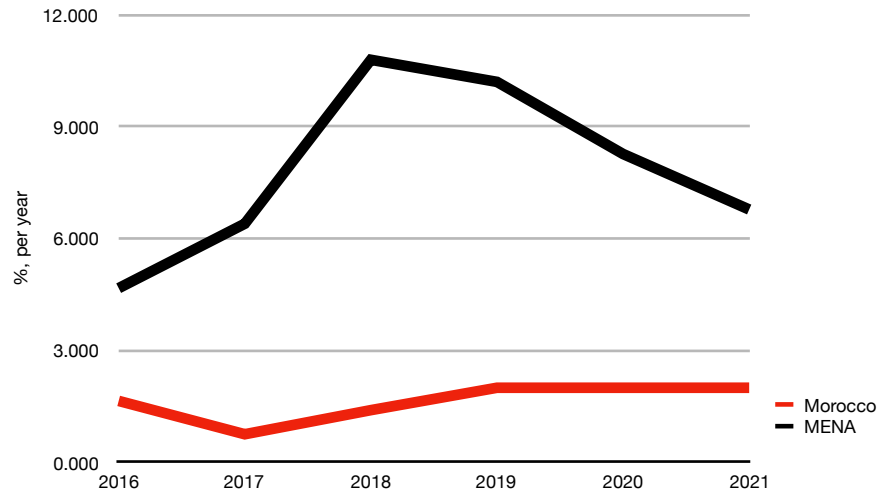
GDP growth



Source: IMF World Economic Outlook, October 2018

Inflation appears headed on an upward path in Morocco after falling into mild deflation in the middle of 2017. Consumer prices increased 1.3% year-on-year in November 2017, following a 0.6% rise in the previous month. It was the highest inflation rate since February and was the fourth monthly acceleration in the annual rate, which troughed at minus 0.1% in July . The main driver was a fall of 1.6% in the prices of food and beverages compared with a rise of 1.3% versus a fall of 0.4% in the previous month. Prices also rose faster for clothing and footwear (1.7% compared with 1.6%) and transport (1.5% compared with 1.2%). Meanwhile, prices climbed at a softer pace for housing and utilities (1.2% compared to 1.4%) and inflation was steady for furniture and household equipment (0.5%); recreation and culture (0.2%); health (0.9%); communication (a flat reading). In December 2017 the central bank maintained its key policy rate at 2.25% as it has done since April 2016 when it cut borrowing costs. It said inflation was likely to rise but would remain moderate. Bank al-Maghrib, said in a statement that inflation was expected to average 0.7% this year, down from 1.6% in 2016, and would average 1.5% in 2018 and 1.6% in 2019.. The IMF expects inflation to end 2018 at 1.6 although it does expect it to return to a trend rate of 2.0% towards the end of the decade.

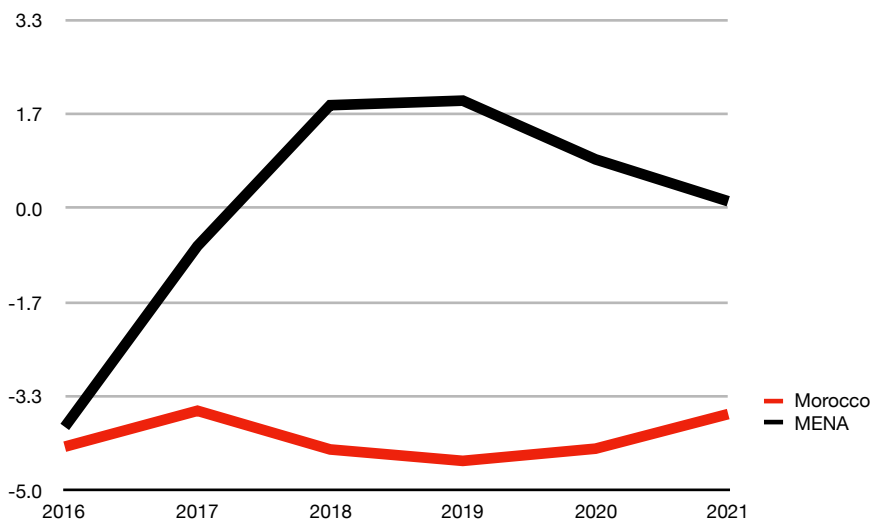
CPI inflation



Source: IMF World Economic Outlook, October 2018

Morocco's current account deficit widened in nominal terms to its largest shortfall in four years in the second quarter of 2017. The shortfall of MAD 24.2 bn was a marked expansion from the MAD 13.9 bn in the previous quarter. It was the largest deficit since the second quarter of 2013. The country recorded a surplus of MAD 4.3 bn in the third quarter of 2015 but otherwise has been in deficit since 2007. The IMF said in August 2017 it supported the authorities' intention to move gradually to a more flexible exchange rate regime and a new monetary policy framework, which underpinned by a well-communicated strategy, will help preserve external competitiveness and enhance the economy's capacity to absorb shocks. The IMF expects a deficit of 2.9% in 2018, up from the 4.4 % in 2016. But it is expected to narrow to 2.2% in 2020. This still represents a narrowing from almost 6% in 2014 due in particular to strong manufacturing exports and improved tourism receipts, remittances, and official transfers. The IMF calculates oil imports decreased by 10% of GDP in 2014, contributing to about 0.75 percentage points of the reduction of the current account deficit. Morocco's trade deficit rose 2.6% in 2017 compared with a year before, reaching a total of US\$ 20.5 bn. The rise in the deficit was driven by a jump in imports of 6.3% to more than US\$ 47 bn from US\$ 44.2 bn in 2016. The hike was due to 27.3% increase in energy bills, 3.8% rise in equipment imports, and a 5.1% increase in industrial goods. Total exports rose 9.3% year-on-year, but stood at only US\$ 26.5 bn.

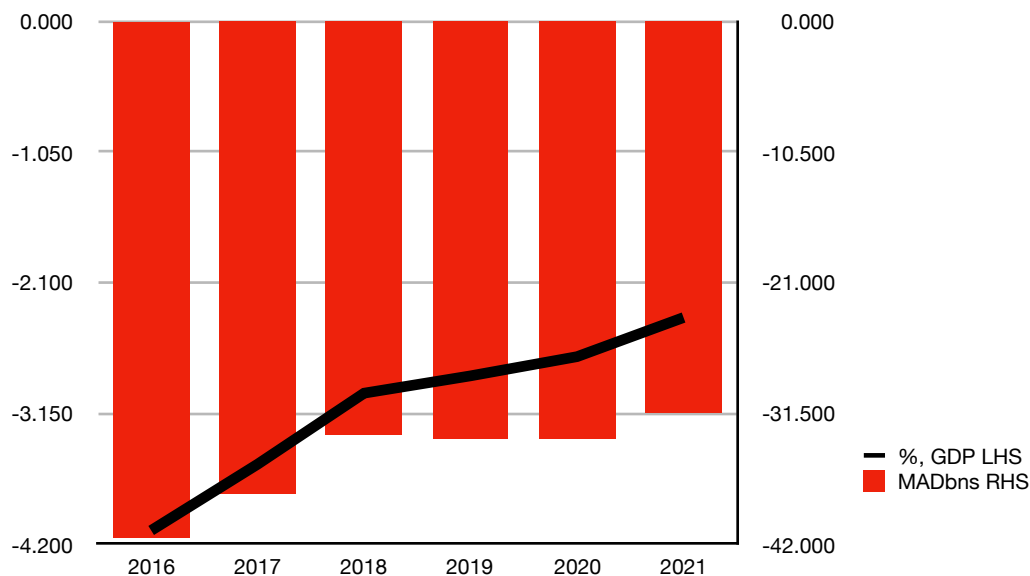
Current account deficit



Source: IMF World Economic Outlook, October 2018

Fitch ratings agency affirmed Morocco at BBB- with a stable outlook based on its forecast a reduction in the budget deficit. It expects the central government deficit to decline to 3.6% of GDP in 2017 from 4.1% in 2016, in line with the government's target of 3.5%. It is forecast to decline to 3.2% in 2018. Morocco's parliament finally approved the country's 2017 budget in June 2017. The delay was due to negotiations to form the new government after October 2016 elections. The budget sees a budget deficit of 3% of GDP, down from 3.5% in 2016. This will put it on track to meet the testing demand of the IMF for a budget deficit of 2% in the medium term as part of the fund's precautionary lending line. The IMF used its October 2017 world economic outlook to forecast net lending, another measure of the deficit, at 3.5% of GDP in 2017 from the 4.0% in 2016. It then forecasts a further narrowing of the deficit to 2.5% by 2020. This improvement will be mostly driven by cyclical factors, with higher growth boosting tax receipts. Resilient tax revenues and well contained current expenditures, which offset the grant shortfall of about 0.3% of GDP and allowed for an increase in investment spending. The fiscal deficit at the end of April 2016 was lower relative to the same period last year (2% against 2.5%) due to strong revenue performance, wage bill containment, and savings on subsidies, and despite higher expenditures on goods and services and accelerated capital spending. The IMF has said that fiscal consolidation should put the external and public debt ratios on a declining trajectory. Public debt is expected to peak at below 62.8% in 2017 before decreasing to about 60% by 2020. Foreign exchange reserves amounted to MAD234bn in October 2017, according to the central bank, the equivalent of seven months of goods and services imports.

Government budget balance

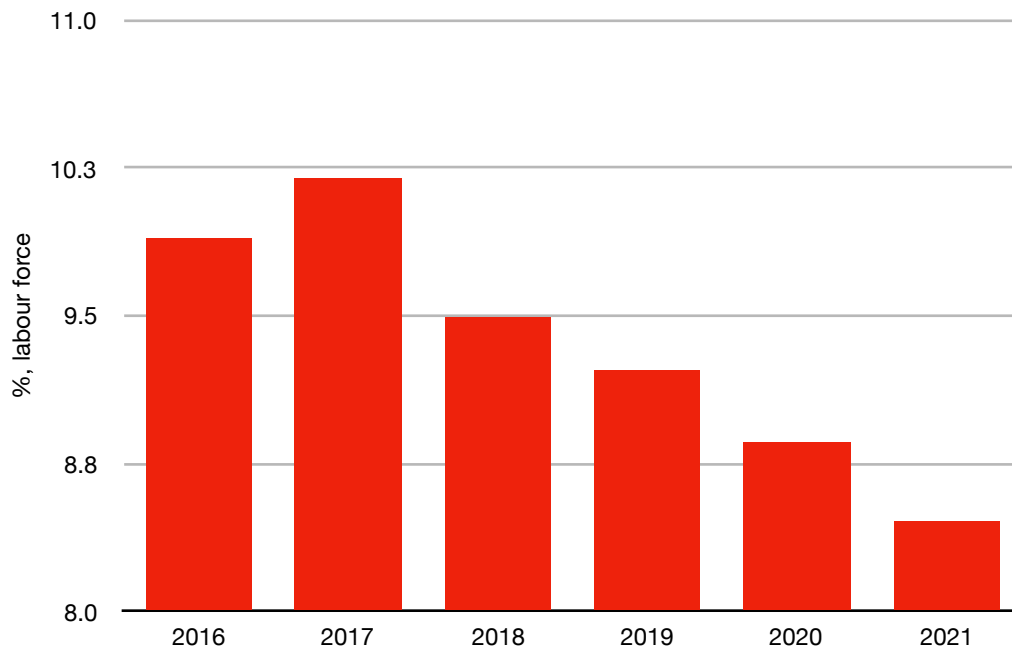


Source: IMF World Economic Outlook, October 2018

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IMF has said that fiscal consolidation should put the external and public debt ratios on a declining trajectory. Public debt is expected to peak at below 62.8% in 2017 before decreasing to about 60% by 2020. Foreign exchange reserves amounted to MAD 234 bn in October 2017, according to the central bank, the equivalent of seven months of goods and services imports.

Unemployment



Source: IMF World Economic Outlook, October 2018

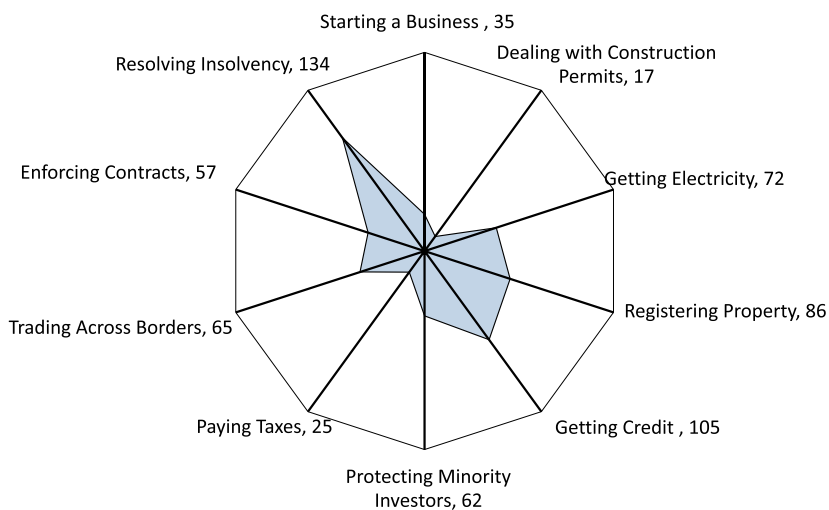
Macroeconomic conditions have continued to improve in recent years and look forward to trend growth of above 4% a year. The economy has benefited from the implementation of prudent macroeconomic policies and structural reforms as well as favourable developments in oil prices, at least until the autumn of 2016 when they started to climb. These macroeconomic policies and reforms have helped reduce domestic and external vulnerabilities, enhance the fiscal and financial policy frameworks, and increase economic diversification. The new government's economic programme is in line with key reforms announced under the IMF-supported programme for the PCL, such as further reducing fiscal and external vulnerabilities, while strengthening the foundations for higher and more inclusive growth. Morocco is still on course to be one of the best performers in North Africa. However, it is important to realise that the spike in growth in 2017 was partly related to swings in the weather that will mean 2018 growth will be slower. Despite the difficult global and regional environments, it can be credited for making significant progress in reducing its fiscal and external vulnerabilities and addressing medium-term challenges. If it continues on its reform agenda, pushes through modernisation of the farm sector, and diverts spending towards capital investment it should be rewarded with growth of almost 4.5% a year by the end of the decade. The implementation of the new Organic Budget Law, the adoption of the civil service pension reform, and ongoing improvements to financial sector oversight have been positive steps. The end of the drought that sapped growth in 2016 should provide a platform for sustainable growth. While the IMF has shaved down its forecasts for the coming four years, the range of 4.1%-4.5% is still above those seen in many of Morocco's neighbours. Inflation is expected to remain low at about 2%. The positive forecasts are based on an assumption that the authorities will continue to implement economic reforms in labour and business markets. The authorities undertook fiscal consolidation and important structural reforms, including subsidy reforms. These measures have helped reduce vulnerabilities, but challenges to growth, employment, and poverty reduction remain. These measures have helped reduce vulnerabilities, but challenges remain. The Plan Maroc Vert (Green Morocco Plan), launched in 2010 in conjunction with the World Bank, should bolster the recent strong agricultural performance. The budgetary framework of introducing multi-year

budgeting, and establishing a golden rule to limit new net borrowing to the financing of capital spending should bring benefits. To improve further the investment climate, the Government announced its intention to proceed with justice reform, improve access to financing, especially for the SMEs, and address access to land constraints. The successful holding of a general election in October 2016 that saw the ruling Justice and Development Party remain the largest party with a gain of 18 seats should bolster political stability. The successful organisation of the first local elections since the establishment of a constitutional monarchy also bodes well.

Overall Morocco's recent record of political stability and security especially following the Arab Spring, and its transport links to Europe, Africa and the Mediterranean, makes it an attractive destination for investors. In the medium term, foreign direct investment (FDI) is expected to further increase, due especially to expected investments in the aeronautics, chemicals, and automobile sectors. Morocco attracted US\$ 2.57 bn of foreign direct investment in 2017, up 12% from a year earlier. Renault and Peugeot are setting up operations in the country. Morocco has the best business climate and connections in North Africa, according to the 2016 Agility Emerging Markets Logistics Index.

Businesses operating in Morocco are still vulnerable to bureaucratic delays and exposure to corruption. However the country has made major strides towards improving business conditions. The World Bank's 2018 Doing Business index ranks the country as 69th out of all 190 countries in terms of the ease of conducting business, almost the same as the previous year for the second year running. It compares with rankings of around 130 as recently as 2008-2010. It rose in three sub-categories but fell in three. One of the biggest improvements was in paying taxes where it surged 62 places to 25th place. However Morocco still scores poorly in terms of resolving business insolvencies and getting credit.

Doing business in Morocco



Source: World Bank, Doing Business Report, 2018

CHALLENGES TO INDUSTRY

Although Morocco's telecommunications and IT sector is experiencing rapid growth led by dynamic public and private sector entities, and the country is generally perceived as a good destination for foreign direct investment in North Africa, some potential obstacles could negatively impact growth in the sector going forward. Government initiative, human capital issues, and problems with market competition could stand in the way of expansion in the sector in the short and medium term.

While the Moroccan government, led by the ANRT, has been a dynamic player in the telecommunications and IT sector in recent years and has made positive contributions to growth and innovation in the sector, the government's positive role has generally been restricted to a regulatory one, and actual government initiatives designed to expand telecommunications and ICT integration in the economy have been less successful. For example, Morocco's efforts to develop e-government programs, thereby increasing local content, have been delayed by various setbacks.

Furthermore, roughly one third of government ministers are equipped with computers, and government internet connections stand at 60%. Electronic services remain limited, with just 208 being offered online, of which only 47% have Arabic language versions. While a lack of Arabic language content on the internet in general has limited the utility of the internet as a means of promoting commerce and extending the reach of government services, the availability of computers and internet connections in government offices is a prerequisite for the broader usage of technology across both government and private sector platforms. In order to extend the availability of technology, the government should make equipping its offices with technology a priority, and explore the possibility of low-cost computer programmes, which have seen success in other regional countries, to make technology available to the broader population.

Another government-related issue for the telecommunications and IT sector is the rivalry between the ANRT and the government as represented by the Department of the Post, Telecommunications and Information Technology (DEPTI). Tensions between the two bodies reached a peak during Vivendi's acquisition of a majority stake in Maroc Telecom in 2005. Private investors in the industry felt that Vivendi's role as majority shareholder was unclear, and that ANRT had been side-lined from the deal. Furthermore, the acquisition raised questions about latent competition between the regulator and government, the authority overseeing the regulatory body, and the government's interests in protecting the previously state-owned mobile operator. When the government attempted to change the legal status at ANRT, the head regulator resigned, protesting that the government was scaling back privatisation reforms. More recently, the ANRT's decision to mandate infrastructure sharing by Maroc Telecom has led to conflict and cast doubt on the regulator's power to enforce its more controversial decisions.

While Morocco's youthful population is generally seen as an asset, and education levels are on the rise, Moroccan youth still lack the necessary skills and qualifications to fully staff the country's rapidly growing ICT sector. While the population's language skills have formed the foundation for a strong off shoring segment, the technical know-how required for innovation in the ICT field via start-ups and the expansion of existing companies is not sufficiently developed. While training programmes have been put into place, these efforts remain limited in scope and require significantly more funding and an expanded field of activity to equip Morocco with the human capital it will need to truly grow the telecommunications and IT sector going forward.

While the ANRT has made significant strides in promoting competition within the telecommunications and IT industry, Maroc Telecom and its affiliates remain major players with strong links to the state. The agency will need to do more to open up various segments of the industry to competition, building upon previous decisions to open up the field of online payments and to require infrastructure sharing. However, the ANRT's ability to take further steps is ultimately circumscribed by the wishes of the Moroccan state at the highest levels, where corruption and a lack of transparency continue to be issues. It remains to be seen to what degree the central government is willing to allow liberal reform and competition in the telecommunications and IT sector going forward.

SWOT CHART

Strengths

- Maroc Telecom is a significant player in the African market and the country has emerged as a hub for regional e-commerce and ICT innovation in recent years.
- The country's independent regulator, the ANRT has succeeded in pushing through significant reforms to enhance competition and foster infrastructure expansion and development in the telecommunications sector.
- Government-backed ICT hubs in Morocco's major cities have helped foster innovation in the ICT field, with many successful local and regional start-ups currently operating in the market.
- Morocco's off shoring sector remains highly successful on the back of a young, multilingual population.

Weaknesses

- Past tension between the ANRT and the government could weaken regulatory oversight and possibly threaten privatisation and development efforts, especially given the dominance of Maroc Telecom.
- While Morocco's youth population is an asset, it lacks the skills necessary to staff a modern ICT sector and more investment in education and training will be needed.
- Morocco trails regional countries in key measures of its business environment, such as contracts and paying taxes. If not addressed, this could deter foreign investment appetite in the ICT sector.
- Persistently high levels of poverty, unemployment, illiteracy, and corruption remain significant obstacles to Morocco's economic development and full engagement in the telecommunications and IT sector.

Opportunities

- Morocco's designation as one of the top e-commerce friendly nations in Africa suggests significant opportunity for expansion of online platforms in the country, following in the footsteps of national and regional companies that have recently launched e-commerce companies.
- Up to 65 percent of the software used in Morocco is pirated, leading to rapid growth in the Information Security market.
- The introduction of 4G LTE services and investment in expansion of telecommunications infrastructure throughout the country offers an opportunity to extend services to underserved areas of the country and for major operators to capture new users.
- A global focus on investment in ICT in Africa makes Morocco well positioned to benefit from various initiatives designed to promote education and training in the ICT field.
- Government interest in growing the sector suggests that more opportunities for education, training, start up funding, and other key investments could be forthcoming in the medium term.

Threats

- Increases in energy imports and staples could further strain public finances—which are already stretched by increased social spending following protests in 2011—and thereby limit the government's ability to invest in infrastructure and implement key infrastructural reforms, such as subsidy reform.
- Low per capita incomes constrain spending power in the market, and limit the ability of much of the population to utilise sector services.
- Rapid growth of the industry over the past decade has resulted in market saturation across key segments, limiting the potential for revenue growth.



PROJECTIONS

Economic Projections

	2018	2019	2020	2021	2022
Nominal GDP (US\$ bn)	190.1	195.9	202.2	207.9	216.8
Real GDP Growth (%)	3.5	3.7	4.0	4.1	4.2
GDP Per Capita (US\$)	5,620.9	5,705.2	5,790.8	6,010.9	6,122.5
Population (mn)	33.9	34.4	34.9	35.3	35.8

Source: Noozz

Industry Projections

	2018	2019	2020	2021	2022
Telecommunications Sector Growth (%)	3.8	3.5	3.5	3.6	3.6
IT Sector Growth (%)	11.4	12.1	12.8	13.4	14.2
IT Sector Revenues (U \$ bn)	3.7	4.1	4.3	5.6	6.3

Source: Noozz



NEEDS ASSESSMENT

- In the face of competition from rising African and Middle Eastern markets, the Moroccan government should redouble efforts to expand the ICT sector and attract foreign investment to areas of strength in the industry.
- The ANRT should continue efforts to enhance competition in the telecommunications industry, expand infrastructure, and promote ICT sector growth. The agency needs to be vested with the power to carry out its more controversial decisions, particularly when they come into conflict with the interests of the central government.
- Vibrant activity in the country's e-commerce sector in recent years should be encouraged by making more funding available to start-ups and cooperation with the banking sector to facilitate online payments and security systems.
- The government should continue to invest heavily in ICT hubs in major cities, and cooperate with international programmes to bring skills, education, and investment to the sector.
- The sector and government at large must tackle corruption and streamline bureaucratic procedures to implement infrastructure projects and encourage foreign investment in the sector.
- Further investment in R&D and ICT education could help build a professional workforce to staff the sector, drive innovation, and provide the foundation for an ICT start up activity, equipment manufacturing, and expansion within existing companies into the future.
- More active integration of ICT into classrooms and workplaces would help to foster a culture of familiarity with key technologies that could help spark interest in ICT and telecommunications sector career paths and innovation amongst the Moroccan population, and the youth segment in particular.
- Migration of government services and the further development of e-government and state-sponsored ICT initiatives would help bolster market education and drive demand for services nation-wide.
- Active participation in regional efforts to develop Arabic web content would enhance efforts to integrate government services with the ICT sector and to attract new segments of internet users.

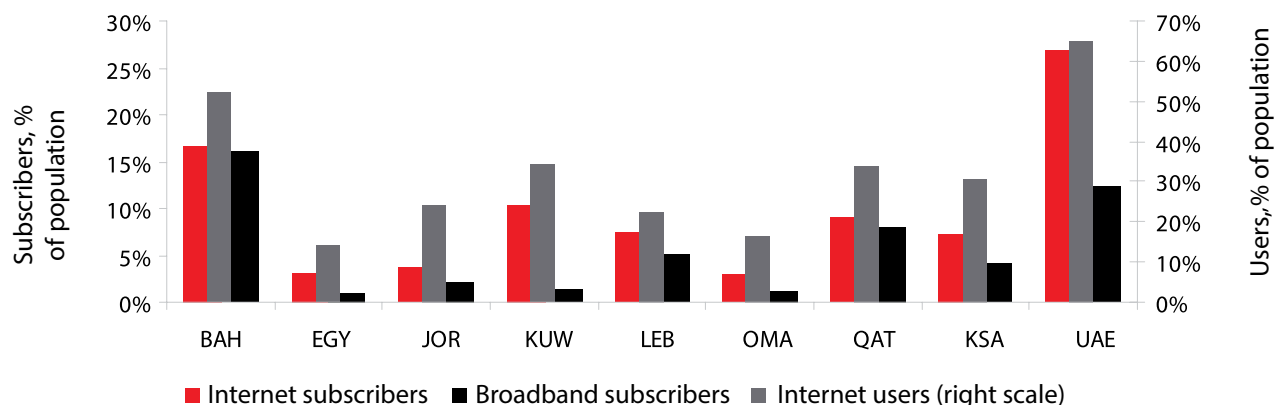
MENA-WIDE OVERVIEW

The telecommunications and IT sector is one of the fastest growing non-oil sectors in the MENA region, with annual revenues estimated to exceed US\$ 70 bn in 2016. Despite this fact, the MENA region still remains far behind the global average in terms of new technology development and sector competitiveness. Indeed, with the exception of Tunisia, all states in the MENA region remain net importers of technology. However, with an average age of 23, the region is also home to the globe's youngest population a demographic that represents a potential boon for innovative IT companies. As key consumers of technology, and a major force in shaping the IT sector, the MENA's burgeoning youth demographic may well usher in a new era of region-wide innovation and connectivity with various regional players beginning to do so already.

As compared to high-income GCC countries, Algeria lacks the successful privatisation track record and expansion of mobile broadband infrastructure and technology to generate attractive revenues from the growing broadband segment. While the majority of countries in the MENA region have embraced privatisation and deregulation, which has led to saturation in the mobile telephony market, Algeria has curtailed many of its reforms in the last three years. Notably, the government now limits foreign ownership to 49% share holding in local firms and requires foreign investors set up JVs with local partners to gain market entry. A long running dispute between the government and Orascom over its mobile operator Djezzy also signaled that the government is reluctant to cede market share to foreign companies at the expense of the state-owned firm Algérie Telecom.

In addition to the government's waning commitment to privatisation and competition, Algeria's dearth of up-to-date broadband infrastructure has also caused it to lag behind other countries in the MENA region. Other ITC indicators reflect Algeria's inability to develop into a robust telecommunication and IT market in comparison to high-income MENA countries: personal computers (per 100 people) totaled 1.1 as compared to the regional average of 5.7; 13.5 internet users (per 100 people) as compared to 34.6; 5 International Internet bandwidth (bits/second/person) as compared to 320. Such low figures can be attributed to Algeria's high poverty rate, failure of government programmes to distribute computers, and curbing of consumer credit to decrease imports, including of hardware.

Internet Market in the MENA Region



Source: Blominvest

The biggest trend to shape the sector is the shift from voice businesses—which has seen falling ARPU rates and is nearing saturation—to broadband services through fixed and mobile networks. Mobile penetration rates have soared to well over 100% in many countries in the region, particularly in the GCC—the United Arab Emirates, scoring the highest in the ITU IDI annual report, has a mobile penetration of 145%. The UAE also has the highest smartphone penetration in the region, at 78%. Fixed broadband markets are relatively underdeveloped, with 50%

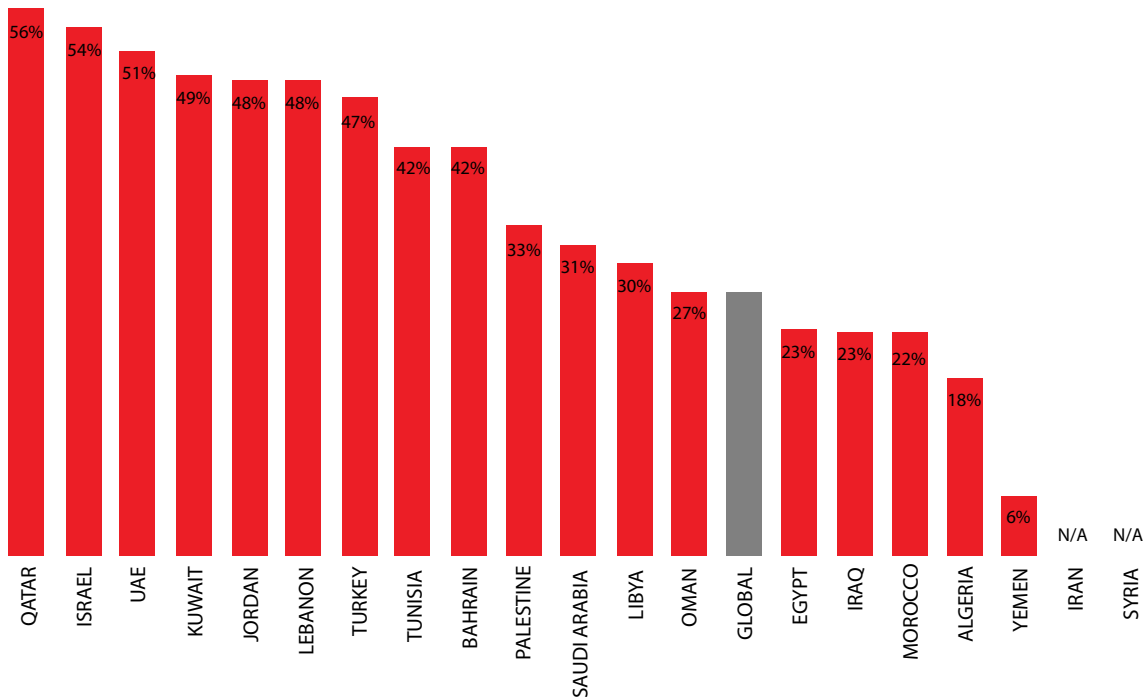
of MENA countries having a fixed broadband penetration at less than 25%. Mobile broadband penetration is better developed, although access across the region depends largely on economics and infrastructure. Eight MENA countries enjoy mobile broadband penetration levels above 50% of the population, rising to more than 70% in Bahrain. In other countries, such as Algeria, the West Bank and Gaza, 3G and 4G services are not available. In Iraq, mobile broadband penetration is less than 10%.

The shift to the provision of broadband services is also buoyed by prevailing global economic conditions. Following the credit crunch of the global recession in 2009, international telecoms have halted their expansion plans via acquisitions and instead have focused on increasing individual ARPU rates by providing mobile valued added-services—mobile banking and sending remittances—and high speed and bandwidth data services. Fixed broadband infrastructure remains underdeveloped in the region and many countries have opted to develop mobile broadband technology instead. Given the higher cost of fixed broadband, analysts speculate that mobile broadband will capture a greater share of the internet services market. Revenues from the mobile data segment are expected to grow steadily from USD\$ 54.5 bn in 2015 to over US\$ 59.1 bn by 2018.

Many MENA countries have readily adapted smartphone devices and tablet computers that generate high revenues from data consumption. In 2014, 36% of users in the MENA region accessed the internet via mobile devices, tablets and smartphones, with penetration expected to exceed 50% by 2020. Smartphones now account for two out of every five phones in the MENA region, and smartphone usage will nearly double by the end of 2018 to 130.3 mn, up from 67 mn in 2013. Smartphone penetration across the region is expected to increase from 5.1% to 8.3% by 2018. In 2015, total smartphone penetration estimated growth exceeded 39%, with annual growth pegged at 8% through 2020. The ready adoption of high tech devices will fuel hardware sales in the region and attract telecoms seeking to generate higher revenues from data.

The MENA region's fast growing population—totalling 381 mn in 2016—and high youth demographic make it a particularly attractive destination for future investment in broadband services. With over 60% of the population under the age of 30, the region's youth driven demographic make it a market more open to new technologies. Indeed, the region has readily adopted social media platforms, particularly Facebook; a recent study by the Doha Film Festival and Northwestern University in Qatar found that 70-90% of Internet users have a Facebook account. Mobile and internet content designed to meet the needs of the region's youth population is likely to be a high regional priority. The number of Arabic-speaking internet users in the Middle East and North Africa region is expected to exceed 80 mn by 2017. Growing numbers of Arabic-speaking users are already using social networking sites, particularly Facebook, with 70% of MENA Facebook users based in five countries – Egypt, Morocco, Tunisia, Saudi Arabia, and the United Arab Emirates. With over 28 mn registered users in 2016, Egypt is the leading Arab country in terms of Facebook use. However, there remains relatively little high-quality online Arabic content and a relative dearth of companies creating digital content specifically for Arabic-speaking users. This holds true for Arabic content designed for mobile devices as well, as only a handful of the available iPhone, Blackberry, or Android applications are developed for Arabic language users despite the regional popularity of these phones.

MENA Social Media Penetration



Source : We Are Social

As the MENA region becomes increasingly connected to global trends and technology developments, Egypt is uniquely positioned to capture the region's ascent within the IT sector. Indeed, Egypt's status as the most populous Arab country and government efforts to increase internet usage are reason alone for the country's attractiveness as a major telecommunications and IT market in the region. Yet Egypt stands out in the region for many other reasons as well. According to the World Bank's Doing Business 2016: Middle East & North Africa report, Egypt has made some of the largest efforts in the region to improve its business regulatory environment over the past five years, and outperforms the regional average in terms of starting a business and trading across borders.

Expected to generate around US\$ 70bn in revenues by 2015, the telecommunications and IT is one of the fastest-growing sectors in the MENA region. The biggest trend shaping the regional sector is the shift from voice businesses, which has seen falling ARPU rates and is nearing saturation, to broadband services through fixed and mobile networks. Mobile penetration rates have soared to well over 100% in many countries in the region, particularly in the GCC; the United Arab Emirates, scoring the highest in the ITU IDI annual report, has a mobile penetration rate of 145%. In sharp contrast, mobile broadband penetration remains low at 3.3% in the region as of 2010, and industry analysts are bullish about its potential for growth, expecting it to reach 57% by 2015.

The shift to the provision of broadband services is also buoyed by prevailing global economic conditions. Following the credit crunch of the global recession in 2009, international telcoms have halted their expansion plans via acquisitions and instead have focused on increasing individual ARPU rates by providing mobile valued added-services such as mobile banking and sending remittances, and high speed and bandwidth data services. Fixed broadband infrastructure remains underdeveloped in the region and many countries have opted to develop mobile broadband technology instead. Given the higher cost of fixed broadband, analysts speculate that mobile broadband will capture a greater share of the internet services market. Revenues from the mobile data segment are expected to double from US\$ 3.1bn in 2007 to US\$ 6.7bn in 2012, constituting 16% of the total revenue forecast.

The Moroccan market has already seen considerable gains in mobile internet usage with an annual growth rate of 7%. Increased interest in mobile internet has correlated with the rise of smartphones in the MENA mobile market.



Smartphone sales in the region reached approximately 9 mn units in 2013 and sales are forecasted to grow by 39% through 2017. As the MENA region becomes increasingly interconnected, the Moroccan telecommunications and IT sector stands to gain significantly from both the country's reputation as a more stable regional economy, its growing population and youth demographic, and a strong government commitment to the sector's development. Despite key segments reaching saturation levels, other segments, such as off shoring and data services continue to have high growth potential. Overall, so long as the government is able to complete key infrastructure projects on schedule while continuing to open the market to foreign participation, the Moroccan telecommunications and IT sector will remain amongst the most developed and lucrative in the MENA region.