

## Chapter 2

# The Changing Landscape of the Middle East

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Fundamental forces are in the process of changing the societal and economic landscape of the Middle East. Region-specific conditions are combining with more universal factors—the sweeping tide of globalisation, technical progress and the introduction of more powerful communication tools. Organisational renewal opens up for novel ways of doing things and reach out to the most distant of societies and previously static economic activities.

The Middle East, meanwhile, is marked by its historic legacy of powerful ancient civilisation followed by centuries of relative stagnation. More recently, rapid economic growth and social change have been seen in parts of the region, including in the GCC countries. However, much of the progress achieved thus far remains dependent on a narrow economic base, notably the riches emanating from abundant oil and gas extraction. Other countries across the Middle East remain plagued by underdevelopment. Some have been deeply affected by oppression and fear, under the iron grip of ruthless power moguls, a situation that has been subject to relentless exposure, through the Arab Spring.

Although change has been under way for some time, the Arab Spring has opened up a distinctly new phase. Multiple voices, including from the young and those on the margins of traditional political power bases, are now being heard in a way that had been unthinkable a few years ago. An intensive search for solutions to economic development and job creation issues has been initiated and is in progress. At the same time, the immediate fallout of the Arab Spring is grim, with dramatic losses in tourism revenue, capital outflows and disturbances in all sorts of economic activity.

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Neither the Arab Spring's political aspects nor its immediate economic consequences are in focus here. Our concern is the socio-economic context underlying the current upheaval, and what ultimately defines the actions that are warranted to address the situation. The trends and issues in scope here span the wider Middle East and North Africa (MENA) region.<sup>1</sup>

In this chapter, we start out to take stock of the historical and cultural background. Although the vast scope of the subject makes it necessary to limit our focus to selected elements, we attempt to cover those main aspects which contributed to where we find ourselves today. We then consider briefly the Arab Spring's bearing on economic structures, demographics, labour market challenges and education. In the subsequent chapters, we look at the state of play in science, technology, innovation and entrepreneurship followed by benchmarking of various performances and policies.

## 2.1 The Origins and Special Context

What we refer to as the “Middle East” is widely viewed as the “cradle of human civilisation”. The region saw the establishment of the first cities more than 8,000 years ago, followed by the first nation states. Here, the balance of power between nomads and sedentary population, and between rural and urban populations, first started to shift as pre-historical military forces were mobilised to underwrite new power structures. It was also here that the ability of humans not only to scribble drawings but to express abstract messages in writing first emerged.

Over the thousands of years that followed, the Middle East remained at the centre of civilisation, alongside Central Asia, the Indian Subcontinent, China and in some instances Europe, as in the days of the Greek and Roman empires or the heyday of Byzantium or Venice. The region played a major role in shaping or perfecting many of the great technical inventions as well as in science, philosophy, linguistics, arts and architecture. The wonders of Muslim buildings in Baghdad and Samarkand in the east, or Casablanca, Cordoba and Seville in the west, are among the most magnificent human construction works found anywhere. The accomplishments of the mathematician and astronomer Al-Khwarizmi in ninth century Baghdad, the linguistic scientist Sibawayh in Basra, the writings of the poet Hafiz at the start of the renaissance in fourteenth century Persia or the Islamic miniature paintings of Bihzad and others of the Herat school in the fifteenth century are the makings of a culture—and of individuals—forever part of a firmament that broke genuinely new ground for humanity in the domains of art and knowledge.

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<sup>1</sup> What constitutes the MENA region is open to multifarious interpretation, though the standard definition comprises 19–21 countries. The World Bank and UNICEF denote 19 and 20 countries, respectively. The main difference between the various authorities concerns whether or not to include Djibouti, Mauritania, Turkey, Iran and Iraq. Some authorities go by membership of the League of Arab States, which has 22 members.

Over the centuries that followed—that were to be marked by the expansion of European maritime trade and then industrialisation and colonisation—the Middle East failed to retain its lead. As science and technology flourished in Europe and later in the United States—the regions that have become known as “the West”—the Middle East saw little progress. Middle Eastern societies and political systems went through a painstaking process of finding a new footing amid the end-game of the European colonial era, led by the imperative to organise economic structures capable of harnessing foreign finance and know-how to exploit the natural resource riches found to be abundant in parts of the region.

We will return to where the region stands in the modern age. First let us reflect on the concept of the Middle East and what is at heart there. The region is closely associated with the influence of Islam and the Arab conquest, starting from the seventh century. Various other peoples and religions have played an important role, too. Spanning multiple geographical boundaries, national jurisdictions and cultural frameworks, a mighty civilisation and way of life evolved. In reviewing the story, we take note of events and tools that played a role in shaping that journey, while not claiming to provide an exhaustive examination.

### ***2.1.1 Expansion and Fragmentation***

Following the quest for Arabs to unite, made by the Prophet Mohammed, the struggles between Mecca and Medina were overcome as an initial decisive step. Mohammed’s followers—including his khalifa Abu Bakr, the military genius Khalid ibn al-Walid, Muawiya, Abd al-Malik and many others—marched on to accomplish an exceptional geographical and cultural expansion.<sup>2</sup>

What ensued is a fascinating and complex story of fierce battles, heavy defeats, an impressive series of conquests, times of unity and serious internal divisions—including a struggle over the role of Arabs versus non-Arabs within Islam.

In their first major advance into new territory, the Arabs conquered the Sassanid Empire in Persia after the battles of Qadisiyya in 637 and Nehawend in 642. Jerusalem (taken in 637), Syria (conquered after the Battle of Yarmouk and the fall of the capital Antioch in 638) and Egypt after the capture of Memphis and destruction of Alexandria, were all wrought from the hands of the Byzantines, who were forced on the defensive.<sup>3</sup> The Arabs, meanwhile, lost no time in marching

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<sup>2</sup> These are some of the main leaders who followed Mohammed. Mohammed’s very earliest followers are divided into those who joined him on his Hijra (withdrawal from Mecca to Medina), the Muhajirun, and the Ansar, who were the people of Medina who helped Mohammad and the Muhajirun on their arrival. The sources generally name some 40–60 persons.

<sup>3</sup> The zeal and diplomatic skill of the Emperor Heraclius as he clawed back against all odds, coupled with the defence of its mighty Roman walls, saved the legacy of the imperial city of Constantinople for another 800 years, until the Ottomans eventually captured it in 1453 under Mehmet II.

west, advancing aggressively along Africa's north coast. They soon reached the Atlantic and moved on from there to enter the Iberian Peninsula in 711. After the fall of Salado and Toledo, the Arabs established their dominance across most of what is now Spain and Portugal.

During their early expansion, the Arabs were kept together within the first great Muslim dynasty under the Umayyads (661–750), who had gained control after the death of Mohammed's cousin Ali Ibn Abi Talib. With Damascus as the capital, their dominance stretched from the Sindh region in today's Pakistan to the Atlantic coast. Championing a privileged standing for the Arabs in Islam, however, they suffered from internal divisions. Further weakened by military defeat as the Byzantine Empire fought back and reclaimed control over Asia Minor, and also a lack of financial reform, they were crushed by the so-called Abbasid Revolution.

The Abbasids, named after Mohammed's youngest uncle, responded to calls for an increased role for non-Arabs. Establishing the second great dynasty of the Islamic Caliphate (750–1258), they moved the capital to Baghdad and opened for increased influence from the East. Some speak of a "golden age" in which science and philosophy blossomed. The internal divisions however remained, and the capital was moved several times, to Marw in Syria, back to Bagdad and to Samarra.

Gradually, the unified Muslim nation in effect disintegrated, with the authority of the Abbasid caliphs assuming a merely spiritual role. Persian and Seljuk dynasties took over in the East. The Fatimid, a separate line of caliphs, emerged in North Africa, claiming to be descended from Mohammed's daughter. Limited to Egypt, that dynasty ended in 1171. The most consolidated standing through these centuries was attained by the Caliphate of Cordoba. Here, the sole survivor of the Abbasids' persecution in 750, Abd al-Rahman or the Emir of Cordoba, established the Independent Emirate as a continuation of the Umayyad dynasty. Made up of mixed Arab and Berber culture, its people were referred to as the Moors by the Iberians because of their black skin. Once the Umayyads died out in 1031, the Iberian Arabs also fragmented into smaller states, constantly at war with each other and thus gradually weakened.<sup>4</sup>

In practice, the Muslim world thus evolved into a set of separate nation states that fought internally and mostly alone when facing external threats. In some cases though, as when the Crusaders marched into the Arab lands with calls to "free the holy city", the Arabs succeeded in mustering a united effort, most famously under the legendary stewardship of Saladin.<sup>5</sup> In the eastern part of the Muslim world, the mighty Seljuq Empire, in the Turko-Persian realm, likewise united the Eastern Islamic world in the 11th century. It was unable to resist the Mongols, however, who devastated the capital of Baghdad in 1258. With that, the 500-year Abbasid Caliphate formally ended.

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<sup>4</sup> Their legacy established an irrevocable bond between the first great dynasty of Islam, across time and space, to later generation followers from the Arabian Gulf to the Atlantic Ocean.

<sup>5</sup> Saladin, or *Salah ad-Din* (1137–1193) in Arabic, initiated the line of Ayyubid Sultans in Egypt. He gathered a large force of Muslims—referred to as the Saracens by the Christians—to combat the Crusaders. Attaining a major victory at Hattin 1187 and eventually settling the peace of Ramla in 1192, Saladin is credited with fending off the Crusaders' onset.

On the same mission, Hulago Khan, grandson of Genghis Khan, destroyed the Abbasid dynasty in Damascus. Jerusalem and Egypt were next in his sights. It was then that another Muslim people, the Mamluks, eventually broke the spell of Mongol invisibility. In the Battle of Ain Jalut on September 3, 1260, the forces of Mamluk Sultan Qutuz and Commander Baibars went through the nightmare ordeal of defeating the Mongols in close combat. In this task they were among the earliest known users of explosive hand cannons, *midfa*, which they deployed to frighten the Mongol cavalry. A new era of warfare technology, and fortunes, had begun.

### 2.1.2 *Loss of Momentum*

In the East, Muslims continued to celebrate victory on several decisive battle-grounds. Their old rivalry with Constantinople, the capital of Byzantium which had arisen from the Roman Empire and represented the prime centre of architecture, art and technological advancement in the Middle Ages, tipped to their advantage after the sacking of the city by the Fourth Crusade. Captured by the Ottoman Turks in 1453 and incorporated in their Empire under its new name Istanbul, it regained its geopolitical significance in a new shape.

On the eastern frontier of Islam against Europe, the Turks and the Ottoman Empire launched a major assault. But from an early stage they lost their grip at sea as the Turkish fleet suffered a devastating defeat outside Lepanto in Greece on October 7, 1571, at the hands of Juan de Austria.

The Turks nevertheless pressed ahead with their mission into the heartland of continental Europe. At their peak—following the Battle of Mohács—their gigantic army exerted control over most of Hungary. Eventually they stood outside the gates of Vienna in 1683, merely to suffer defeat at the hands of the Polish leader Jan III Sobieski, who showed up to save Austria at its most threatening hour. Only in the twentieth century, after the Turks' gradual withdrawal and eventual successful defence against the allied forces under Mustafa Kemal Atatürk at the closure of World War I, was today's border settled, with a thin sliver of Europe left to provide a hinterland for the cosmopolitan city of Istanbul.

On the western frontier, the Moors' advance into the Iberian Peninsula likewise led to an early attempt to enter Gaul (modern France). The venture stranded at Poitiers in 732, at which the Franks and Burgundians under Charles Martel won a decisive battle despite reportedly being heavily outnumbered. Instead the Moors consolidated in al-Andalus, dominating the Iberian Peninsula until the fifteenth century. Once the tide turned, however, with the rise of the Spanish *reconquista* and the capture of Granada in 1492, the Straits of Gibraltar became a firm dividing line in the west between the Arab and Muslim world in the Maghreb and the predominantly Christian lands of Western Europe.

In their exchanges with the Europeans, particularly in Spain, the Arabs spurred an extensive transfer of new ideas and technologies, with their arithmetical numbering system and printing skills destined to prove of fundamental importance. Of most

immediate significance, however, was their knowledge of how to put gunpowder to military use. First invented in China, for primitive catapults and early cannons around the turn of the first millennium, once gunpowder was shown by the Arabs to be a highly potent military weapon, including in their attack on a Spanish city, the Italians ordered manufacturing of cannons and cannon balls. Military gunpowder applications took off in Europe from the mid-fourteenth century.

Destiny had it that the Spanish and the Portuguese, themselves just freed from the Moors, were to ruthlessly exploit that advantage in the New World. Having crossed the Atlantic and gained access to the gold and silver of the Indian lands, they acquired the combined drive, experience, and muscle to manoeuvre for systematic control of the most lucrative merchandise trade in the world, and once and for all break the traditional standing of the *Silk Road*.

Along with the Dutch, the British and the French, Spain and Portugal were the littoral states and expansionists which set out to overthrow national borders and the structure of the world economy more thoroughly than had occurred at any previous point in the history of mankind.<sup>6</sup>

The international trade was predominantly engineered by privately owned trading houses, and as the volume of exchanges expanded, the pull for developing improved means of transport, better boats and equipment, the development of the steam engine itself, the continued improvement of logistics chains and so on, was at full force. The political impacts were to follow the commercial and the technical, not precede them. The European influence on the status of its trading partners across Africa and Asia remained relatively limited, until the great spurt in colonialism took off in the nineteenth century.

Life in the core of the sparsely populated Arab peninsula took its course amid the big battles. Through the ages, the fishermen went to sea in their dhows or *khashab*, the caravans crossed the deserts, and nomads and their cattle sought out pasture. The women, few of whom feature by name in the male-dominated historical records and tales, guarded the family and raised the children—institutions of primary concern in the Arab world. The Arab woman generally enjoys great pride and respect, within her sphere of influence, for her role as wife and mother, but her access to education and her contribution to wider development has been mostly limited. Yet again, the forces that were to alter the outlook for the mightiest of cities and most numerous of peoples in Asia and the Middle East, along with the significance of the most ancient of trade routes across the most peripheral of lands, were busy at work in the hands of the innovators, traders and conquerors emerging from the West.

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<sup>6</sup> Following Vasco da Gama's rounding of Africa in 1492 and the Spanish–Portuguese onslaught in Latin America, the proceeds from the gold and silver of the new world were partly invested to gain control of the new overseas trade routes and for purchasing lucrative Eastern merchandise that had until then been highly scarce in Europe and thus attained enormous value. At the same time, the expansion and exports of early manufactures from Europe amassed tremendous wealth at the expense of the traditional traders of the Middle East, Central Asia and the Far East. In the process they subjected the industries of both the East and the West to a new powerful impetus for change.

### 2.1.3 *The Colonial Era*

The more recent history has been deeply affected by the extensive colonisation undertaken mainly by Britain, France and Italy in the nineteenth century. The era lasted until the 1950s, by when most areas in this part of the world had gained independence. Last out, in 1962, was Algeria, where the struggle for independence from France was one of the most violent and dramatic anywhere.

As early as the seventeenth century Europeans gained control over some of the region's strategically important areas. In some cases the occupations were temporary, as in the case of the Portuguese annexation of coastline in Oman. The Portuguese presence still lasted for 150 years, until it eventually came to an abrupt end as the Omanis fought back and regained access to the sea. Most of the Portuguese and Spanish colonial empires subsequently acquired autonomy in conjunction with the independence of Latin American states in the early nineteenth century.

In 1798–1801, Napoleon Bonaparte mounted a campaign in the Orient aimed at boosting French commercial interests, countering Britain's expansion in South Asia and attempting to access knowledge of the region, and Egypt in particular, through science, technology and arts. The mission led to the capture of Malta but suffered severe military setbacks, for instance in Egypt and Syria. The combination of exhausting conflict within Europe itself and military setbacks in the Middle East moderated European advances at the time.

All the same, military and economic dominance, which eventually turned into a dramatic quest for direct control from the 1860s onwards, eventually ushered in the era that became known as the New Imperialism, or the scramble for territory between (especially) France and Britain. The race was particularly swift in the inner African continent, which had largely been unexplored by Western civilisation up to that point.

In North Africa, Italy joined the race in the late 1890s by acquiring Somaliland, Eritrea and modern Libya from the weakening Ottoman Empire with the 1912 Treaty of Lausanne. Ethiopia first fought back but was then temporarily occupied for 5 years. Meanwhile, the Arabs rose against the Ottomans in 1916–1918, supported by Britain and notably Captain T. E. Lawrence, to form a new state with Damascus as its capital. With the secret 1916 Sykes-Picot Agreement, the British and the French had however already agreed to split the region between them. France gained Syria as a protectorate, while Britain obtained the Christian coastal areas that were to form Lebanon, as well as Iraq and Palestine. On the Arabian Peninsula, Ibn Saud created the Kingdom of Saudi Arabia in 1922 with British assistance.

Although the restructuring and reorganisation brought about by the onset of colonialism was less overwhelming than further south on the African continent, it inflicted a heavy legacy here as well. In particular, the detection of oil riches in several parts of the region hastened the rise of close relations between the Western exploration industry and local leaders—relations from which both sides soon acquired enormous wealth. For years to come, however, the former colonial powers maintained the upper hand and held out as long as they could against a more even sharing of gains with local

counterparts. An example was the British power game in Iran, following their military annexation of the country during World War II, which created deep animosities.

Of particular relevance in the context of this book is the exclusion of the local population from education, learning and science. Wide ranging attempts took place, especially in the Maghreb, to impose foreign (colonial) language and minimise local language (Arabic) support, sometimes with the intention of heavily impacting fundamental cultural and historical features. The “Our ancestors the Gauls” refrain, expounded in Algerian primary schools during the colonial occupation, illustrates the severity of the campaign. Other restrictions in Algeria included limitations on access to higher and professional education, which was reserved exclusively for French children and a few families considered close allies of the colonial administration. At independence in 1962, only 10 % of the 6,000 students at Algiers University were Algerian nationals.

One of the leaders of the first struggle, Emir Abdelkader, was born in Algeria in 1808 and died in 1883 in Damascus, Syria, where the French had exiled him. His effort to liberate his homeland saw several attempts to acquire technological know-how to set up industrial infrastructure, essentially for military purposes. Many of his technology-transfer policies were burgeoning before he was defeated.

The attempts made by Mohamed Ali in Egypt in the nineteenth century to restore science and technology as a key element of development, notably for infrastructure and industry (and initially with the help of French engineers), were aborted when, seemingly under external pressure from Britain, the French withdrew their support.

The period of outright colonial occupation started to unfold early though. Iraq, Syria and Egypt gained partial independence in the 1920s and 1930s, although it took World War II for the colonial powers to finally depart. In Palestine, however, the conflict was not to be resolved.

These developments provide the wider context for what was to follow in the second half of the twentieth century with regard to the region’s troubled journey to regain control over its own destiny. The struggle for control as well as economic benefit from the natural resource base has been the most conspicuous element. Increasingly, however, access to the domains of science and technology has proven one of the toughest. The region’s general failure in this respect contrasts sharply with East Asia, where Japan, South Korea, Singapore and others have made headway, not to speak of China in the world now taking shape.

### ***2.1.4 The Blended Regions of the World***

Although the Ottomans are gone, many people deep into the Balkans—notably in Bosnia-Herzegovina, Montenegro and Albania—remain faithful to Islam. Later waves of immigration to Germany, France and indeed virtually all other countries across the European continent have led to a widespread presence of Muslim followers. In the Middle East itself, the Arabs have been joined by other major peoples in following Islam, albeit with important differences in interpretation of



the historical legacy.<sup>7</sup> The Turks and the Persians at times even overtook the Arabs in political weight.

Muslim communities also exist in other regions, with by far the largest in India, Indonesia, Bangladesh and Pakistan. Other examples include Malaysia and Africa's east coast. The presence of Islam in these areas is rooted in hundreds of years of complex interfaces, involving commerce in gold, iron, slaves and ivory, with heavy engagement by Omani traders who established a strong local presence in and around trading posts such as Zanzibar, spreading a combination of fear and respect for Arab ways.

Hence, Islam is not synonymous with the Arabs or with the Middle East but extends much further. Conversely, many people in the Middle East adhere to religions other than Islam. Although the Prophet Mohammed called for one god and one faith, Islam was generally tolerant and allowed others to choose their form of religious practice.<sup>8</sup> When the Arabs conquered Egypt in the early days of their expansion, they gained the critical support of the Christian Copts thanks to a promise of religious freedom. The Copts are still there today, a minority of approximately 10 million in Egypt. Large non-Muslim minorities also live in Syria, Lebanon and Turkey.

This predominantly Muslim region has also played host to the rational Mutazilites, who stood up against supra-natural features of religion, the mysticists or Sufis, and the dervishes order they created and whose peculiarities included spiritually trance-provoking dances.

Though orthodox Muslim influences have gained ground, promoting adherence to the exact wording of the Koran and constricting the room for interpretive variation, the Middle East has always hosted multiple followers of different religions. The Iberian Peninsula, for instance, had an estimated 7 million Christians and Sephardic Jews when the Arabs arrived, and the latter never achieved a majority there. Animosities between Arabs and Jews on the other hand date back to the early days of Islam and were manifested in various conflicts and friction over the centuries. Today, Israel forms a Jewish state, whereas the Palestinians—who made up the bulk of the population in Palestine over the last millennium and who now are dispersed across Israel, the occupied territories of Gaza and the West Bank, and other countries—are mostly Muslim (though a minority are Christian).

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<sup>7</sup> Most importantly, the continued discrepancy in religious interpretation between the Saudi-based Sunni perspective versus that of Shia, centred in Iran and to some extent Iraq, perpetuates the old struggle of the Umayyads versus the Abbessids.

<sup>8</sup> This has no doubt raised respect and is a factor behind the appeal of Islam in large parts of Africa and Asia, where Christianity has become much less established as a religion, despite the European commercial and political onset.

### 2.1.5 What Characterises the Middle East?

Apart from the role of Islam and its geographical reach, what else characterises the Middle East? A number of cultural commonalities form a principal part of the answer to this question and centre to a considerable degree on Mecca or Medina, which are in the Arab heartland and are closely associated with the journey of Mohammad. Then there are Baghdad, Beirut, Cairo, Casablanca, Damascus, Istanbul, Jerusalem and Samarkand—legendary cities that have served as a cradle for defining important lines of culture and learning. In the modern era we have Dubai, Abu Dhabi and Qatar City, which have sprung to life as international growth hubs and seem to have no limits to their economic, futuristic aspirations.

More encompassing is the intriguing mystic influence of the Moon, around which the Arab calendar revolves, in contrast to the focus on the sun in the west. Another key feature is the role of the written Arab language. As with Chinese, the Arabs speak numerous dialects that have grown so far apart that they in essence represent different languages. However, they still share a written language, commonly known as standard Arabic and which represents a critical unifying factor.

Other popular symbols and features are used to signify Middle Eastern culture: Bedouins, nomads, camels, the desert, palm trees, dates and the pyramids. Allegiance to family and uncompromising defence of community interests combine with an almost limitless hospitality for which Arab people are renowned, including the ancient welcoming of strangers, well documented down the centuries and stretching across cultural divides. On the other hand, the Arabs are also associated by some with shrewd merchandise, arrogance and lack of trustworthiness. Other associations flow from the ancient tales of magnificent palaces and treasures and the magic of supernatural figures, such as the genie in the bottle or flying carpets.<sup>9</sup> Water is seen as the ultimate source of life, through the sanctuary of the oasis or the gifts of the Nile, Euphrates or Tigris rivers, enabling rich cultivation of sun-burnt land since the earliest days of human civilisation.

Such connotations have been around for hundreds, if not thousands, of years. Although the traditions associated with, for instance, Bedouin life and ancient trades have only a minimal real-world presence today their imprint on mindsets still matter hugely. There is also stark contrast in the conditions of the majority who inhabit the sprawling cities and the dwindling but still significant share of the population living in the extensive tracts of grassland and desert, often under poor conditions. Many modern-day people around the world harness images unrelated to either of these worlds, however. Commonly they would centre on the imprint of unrelenting confrontation between people, related to differences in religious stance, notably between Muslims and Jews.

Many images hang in the balance, including traditional hallmarks that are transformed and diffused in new packaging by the Western entertainment industry.

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<sup>9</sup> Most famous is Harun al-Rashid in *One Thousand and One Nights*, a set of folk tales in Arabic compiled during the Islamic Golden Age.

The Walt Disney tale Aladdin had its distinct composition of good and bad, trusty and trustworthy, borne out less on the basis of the cultural understanding of the peoples of the Middle East than it was shaped by consideration to the hearts of minds of American (or Western) audiences. Diverse expressions of this kind are inevitable in a multi-faceted world where communication flows are ever-growing. The problem arises when there is a massive imbalance in which perspective gets represented.

The messages that have shaped the current views of the Middle East among many people around the world have thus been conveyed by English-language world media organisations such as CNN and BBC basically on the terms of the West, in a never-ending stream of brief messages lasting perhaps a minute or so. In recent times, however, the Middle East has spawned its own TV channels, which opens up for richer perspectives.<sup>10</sup> This has no doubt affected the Western media and led them to weigh their coverage of this complex region more carefully. Still, the fundamental logic of news coverage in our days carries with it contradictory implications for how the region perceives itself. On the one hand, there is the striving towards transparency, the explicit recognition there are more than two ways of looking at a situation, and that all perspectives have a right to be acknowledged and heard. On the other hand, there is the focus of the media agency itself on the shocking and unpredictable, while the continued peaceful co-existence of large communities of people by nature does not represent “news”, and thus seldom hits the headlines. The history of the Middle East belongs to us all, however, and the narrative needs to be told and reflected on by probing beneath the surface of often shallow, and subjective views which otherwise are bound to worsen the presence of damaging prejudice.

Core aspects here are the values of the people, their way of life, the making of new technology (and how it is utilised), trade, commerce, investment, education and learning. For thousands of years the Middle East was shaped by these forces. The region rose up and expanded but then fell behind as others came to dominate the means of warfare, travel and international trade. It used to be a major platform for scientific discourse. But whereas it has regained ground economically in recent decades, in a large part thanks to its enormous natural resource wealth, again it lags behind in science, technology and innovation. Hence, it is behind in examining, evaluating and correcting its own economic, social and environmental agenda. It is behind in the creation and development of new enterprises and jobs. Technology offers opportunities, but also presents risks. Without the required tools and competencies, new jobs will not materialise. Rather, they will shrink farther in number.

This is the situation that the Middle East must now deal with. What path will emerge in the wake of the Arab Spring? That is the topic of this book, around which this story swirls.

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<sup>10</sup> Leon Barkho (2008) demonstrated the bias of CNN and BCC, compared to Al Jazeera, as consciously engineered through corporate culture and terminology crafted to distort the message and show only one side of the story.

## 2.2 The Era of Change and the Arab Spring

Today's world is marked by sweeping change, carrying with it unprecedented opportunity as well as a host of challenges. As we have seen, these challenges are partly to do with globalisation and technical progress, which bring rapidly increased opportunities as well as interdependencies between the countries and peoples of the world.

The rise of information and communication technology (ICT) should be underlined in this context. Having witnessed the advent of computers and discs and the internet, we are now into the era of mobile technology, along with convergence, the emergence of the interconnected grid, cloud computing and the growth of social networks and instant messaging—all leveraged by interactive services reaching out to the most distant corners of the world.

Despite spreading at staggering speed, the new technological tools have at times seemed out of touch with what happens on the ground, especially in developing regions. Hardware, software and content have been crafted primarily by foreign hands and for purposes that seemed of limited relevance to ordinary people. But, akin to the emergence of the Qatar-based Al Jazeera in the sphere of televised news coverage, digital communication has rapidly become shaped and exploited from within local communities, including in the developing world, and on the terms of new players. This to a large degree reflects the diffusion of ICT that has become possible with mobile telephony, and also the growing competition between services bent to put the needs of users and consumers at the centre of development.

ICT with its accompanying paradigm has the potential to accelerate e-commerce, e-health, e-education and e-government solutions, in response to a range of outstanding issues. For a growing number of people in the MENA region, the impact of ICT is pervasive. The young, girls as well as boys, are as wired as their peers anywhere else. Yet, to some, especially among those lacking educational opportunities and in rural areas, ICT is viewed as a carrier of growing income differentials. Many people find themselves confronted with inadequate and frustrating conditions, without a clear vision for how the technological advance can move them forward.

Strikingly, at a time when technology offers greater opportunities than ever to resolve major issues confronted by mankind and people all over the world, funding to support technological development is under pressure, and fewer of the young appear attracted to the subject. Here, the Middle East is an international focal point, crucially confronting the outstanding bigger question of whether there is to be hope, or exasperation.

### 2.2.1 *The Varying Record of Governments*

Various initiatives have been taken over the years to develop and modernise societies across the Middle East. Inevitably we can cover only a few aspects here.

Over the last half-century, various countries in the region have displayed noteworthy leadership towards the adoption of new development tracks. Here,

Israel's spectacular development path since its creation was to a large extent backed by its immigrant technicians and entrepreneurs, as well as extensive capital inflows; consequently it saw the rise of one of the most research-intensive and innovative economies anywhere. For the Arab world, that record was generally perceived as a threat rather than setting an example. Given its strong Western support, many saw Israel's progress as based on factors that were not accessible to other countries.

Examples closer to home took a little longer to appear and, as they did emerge, the imprint was different. The shifts and turns in the leadership of three main countries are worth noting:

*Iran.* Following the British–Russian invasion during World War II and the subsequent lop-sided Western exploitation of the country's oil wealth, the democratically elected Mohammad Mosaddegh undertook, during his short spell as prime minister, a series of social reforms and acted against the Anglo-Iranian Oil Company (AIOC) to gain control over the country's oil resources. The then British-led isolation of Iran, including a trade embargo and the freezing of its foreign assets, devastated Iran's economy and was followed by the military coup on August 19, 1953, when the US Central Intelligence Agency (CIA) in effect replaced Mosaddegh with the Shah Mohammad Reza Pahlavi as Iran's head of state (Cole 2009).<sup>11</sup> The Shah subsequently adopted business-friendly policies, but

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<sup>11</sup> Similar counteraction, instigated by Western powers, hit other newly independent countries around the time. The Democratic Republic of the Congo represents one of the most significant parallel cases. The (again) democratically elected prime minister, Patrice Lumumba, came to power in 1960 with a programme to nationalise prime natural resources, particularly the copper mines, following the agony of colonisation and in the context of continued foreign exploitation of the country's mineral wealth. A state of civil war took hold as Belgium, Britain and the United States moved behind the scenes to separate the mineral-rich Katanga region. Dag Hammarskjöld, then Secretary General of the United Nations, refused to bow to the pressures of the dominating powers and engaged in ferocious diplomacy, only to die when his plane crashed in the Zambian jungle on September 18, 1961, under mysterious circumstances. Most probably an act of state terrorism targeting the highest level of international diplomacy, the case remains unaddressed to this day. Lumumba, meanwhile, was stoned to death, whereas the man who led the coup, General Sese Seko Mobutu, was to rule the country for 30 years, engineer a personality cult and become associated with "Mobutuism" as a low mark for perverse societal reforms, while acquiring enormous personal wealth borne out as one of the worst state frauds of all time. The democratic Republic of the Congo, for all its wealth, is still today stranded in a state of severe stagnation, domestic violence and suppression of its impoverished civilian population. In Iran, Mosaddegh was placed under house arrest until his death three years later, but the scars remain and the state of conflict with the old foes is as alive today as ever. This disastrous context, seldom spoken of in Western countries, has had far-reaching consequences for perceptions around the world. Less well known, as more or less all developing countries followed suite in claiming control over their natural resources a few years later, the strategy of the multinationals and the Anglo-American alliance subsequently changed tack (Lipson 1985). Ownership of natural resources was mostly given up, with other ways and means adopted to secure the interests of investors, such as maintained control over logistics chains and access to developed country markets (Moran 1985). In Geneva, decades of work by the United Nations to put in place a convention for multimodal transport, to make the markets of developed countries more transparent and accessible for exports

economic growth during his 20 years in power was overshadowed by luxurious spending and enormous private wealth accumulated by him and his wife. The contempt of the masses boiled over in 1979, leading to the ousting of the Shah and his replacement by the Shiite Muslim leader Ayatollah Khomeini. Although the US had not initiated the Iranian plight decades earlier, the dramatic developments surrounding the takeover, including the revenge and humiliation that the US suffered during a militant Islamic student occupation of its embassy in Teheran, brought events a full circle in the eyes of millions of onlookers across the region.<sup>12</sup> Within Iran and the Arab world more broadly, the forces of orthodoxy were strengthened at the expense of those that sought reconciliation with the West.

*Egypt.* Prime Minister Gamal Abdel Nasser on July 26, 1956, nationalised and seized control of the Suez Canal, a trading route of critical importance to international commerce at the time. Within a few months there was the military invasion of Israel and bombing of Egypt by the French and British air forces. Nasser was a revolutionary who enforced an enhanced role of government, cultivated close relations with the Soviet Union and moved towards a planned economy. Although his initially favourable development record was soon overturned, Nasser has remained a legendary leader figure in the region. After his death from a heart attack in 1970, he was succeeded by Anwar Sadat, who was murdered in 1981 and succeeded by Hosni Mubarak. Both Sadat and Mubarak, who ruled until 2010, made peace with Israel; they also benefited from US assistance and promoted the stark dominance of the military over Egypt's central power structures. They shifted towards supporting a more market-oriented economy, and economic growth under their stewardship was mostly favourable. However, there was little trickle-down of prosperity to the population at large. Income gaps have remained huge.

*Iraq.* Saddam Hussein attained powerful influence from the mid-1970s and manoeuvred to become president in 1979, a position he retained until 2003. He initiated an economic modernisation process to develop infrastructure, industry, agriculture and education. Running the Baath party and supported mostly by the Sunni minority, he did not hesitate to quell opposition by sheer force and brutality and gradually aroused deep animosity among the Shia majority. In 1980, he launched a military assault on Shiite Iran, which he judged to be internationally isolated and unable to defend itself after the revolution there, a conflict that caused both countries unbearable suffering during its eight exhausting years.

Once Saddam invaded Kuwait and set most of the city and its oil wells ablaze, the international community turned decisively against him. The UN-authorised coalition force that initiated "Operation Desert Storm" in 1991 still stopped short of causing his downfall. Following a heated debate on whether he was on the way

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(Footnote 11 continued)

from the third world, was watered down to the point that it had become irrelevant by the time it could be published.

<sup>12</sup> US embassy personnel were held hostage for 444 days. The offense most probably cost Jimmy Carter the presidency and was thus instrumental for bringing the Republicans under Ronald Reagan back into the White House.

to acquire “weapons of mass-destruction”, Saddam was eventually subjugated and toppled by President George W. Bush through a military invasion in 2003. The chaos that followed threw the Iraqi nation into years of turmoil and de facto civil war between its rivalling communities. The Kurdish majority in Northern Iraq achieved greater independence along with enhanced stability and security, whereas strife has continued notably between the minority Sunni and majority Shia factions. Many of the well-educated and many Christians who had previously lived in Iraq under relatively stable conditions have fled the country and provided a source of skilled labour to other countries in the region, not least in the Gulf.

Among major current Muslim Heads of State, King Abdullah II of Jordan, King Abdullah of Saudi Arabia and Sultan Qaboos bin Said Al Said in Oman have taken a number of steps to develop their economies, while striving for harmony with traditional and religious values. In Turkey, Prime Minister Recep Tayyip Erdogan has combined a distinct Muslim profile with a strengthened market economy (including reforms carried out as part of the frustrated EU membership application process) and manoeuvring for Turkey to attain a revitalised geopolitical role, both in regard to the Arab Spring and the Palestinian cause.

The most striking examples of modernisation have for some time emanated from the small (mostly) oil-rich city states in the Gulf. Although short of natural resource wealth, the emirate of Dubai<sup>13</sup> pursued an ambitious strategy to upgrade its real estate and workforce to build an advanced, globally connected service economy. The world’s highest building at the time of writing, Burj Khalifa, stands as a towering symbol of this decisiveness, even though Dubai had to agree to a name change when struggling to repel the severe consequences of the global financial crisis for its debt-ridden economy.<sup>14</sup> Qatar has taken a lead in several respects, literally shaping the new regional media landscape by allowing and defending the rise of Al Jazeera as an outspoken bipartisan media voice. For the first time, the Middle East received comprehensive reporting from both sides on practically any major issue in the region or the world. In developing its small city state, Qatar likewise went its own way in launching ambitious, and expensive, infrastructure and development projects. The Qatar Foundation for Education, Science and Community Development was set up in 1995, followed by construction of 14<sup>2</sup> km of housing and educational facilities at Education City, to which leading Ivy League universities have been attracted to pursue their

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<sup>13</sup> The development work has been substantially upgraded under of HH Sheikh Mohammed Bin Rashid al Maktoum, Ruler of Dubai and also UAE vice president and prime minister. De facto leader since the mid 1990s, he formally adopted the position of ruler in 2006.

<sup>14</sup> Originally planned to be named Burj Dubai, the name of the building was changed just before the inauguration, in connection with the provision of a financial package of 10 billion USD, provided by Abu Dhabi, to fend off Dubai’s acute financial troubles. The name change has thus implicitly become regarded as perhaps the most expensive in history. In reality there were other parts to the deal, although hardly any ownership share or “say” by Abu Dhabi in Dubai’s flagship carrier, Emirates, the world’s most successful airline company over the last decade, which remains to date a shining symbol of Dubai’s remarkable rise.

programmes. Politically, Qatar has also stood out through its regional leadership against violence and oppression by Arab governments in the wake of the Arab Spring, notably in Libya and Syria.

While less flamboyant, Bahrain and Kuwait have undertaken their specific initiatives, for instance reforms to lay the basis for a dynamic financial centre in the former, and the development of a pioneering centre in diabetes and health research, the Dasman Institute, in the latter. Both states have been weakened by internal conflict, however. In Kuwait, this is essentially a matter of bureaucratic rigidity and political infighting. In the case of Bahrain, the core of the problem is closely associated with the Shia versus Sunni division. The regime has reacted violently against protesters, including the young and unarmed, putting one of the GCC countries at serious risk for the first time since the breakout of the Arab Spring.

Other larger Arab countries initially looked at the initiatives adopted by these city states with scepticism or even outright contempt. Whereas many of the other modernisation efforts, including those pursued by later-ousted regimes in Iran and Iraq, ran into sharp reversal, the sustained development efforts of the smaller GCC countries gradually impacted on mindsets as they started to demonstrate that consistent economic progress could be achieved within the Arab world. It is another thing, as we will come back to, that the GCC collaboration itself achieves a fine balance between the demand for political unification—notably by Saudi interests—and the benefits enjoyed from collaboration limited to certain policy domains (with member countries maintaining cultural, political and economic independence), and thereby supports a diversity of development models.

At the end of the day, the economic transformation experienced by parts of the Middle East in recent decades is among the most impressive seen anywhere around the world. Several GCC countries have risen to economic pre-eminence and are capable of rivalling others almost anywhere when it comes to traditional measures of economic growth. Yet, in the neighbouring countries, there has been much less progress in this respect. Even in the GCC, there are good reasons to question how far-reaching the changes have actually been. What has happened, and not happened, in economic and social terms, and in areas of reform that are critical for future progress?

### ***2.2.2 New Generations: The Arab Spring***

Although the change that arrived in 2011—the “Arab Spring”—was sudden and unpredictable, the chain of events that led there goes way back. It includes the ongoing modernisation process—notably increased access to information and communication tools—coupled with a lack of progress under the old regimes. The fuse for uprisings had been laid years before. Ultimately, the spark this time came from North Africa and the streets, not from the politically or economically powerful operating behind closed doors or the walls of marble palaces. The timing



could hardly have been predicted, though it may be easy to rationalise it in retrospect. The Arab Spring proved something new: that decisive initiatives in the Middle East do not have to be of government making, or even the making of established institutions and individuals.

For all its achievements, the development process across the Middle East had until this moment left the prevailing power structures basically intact. True, individual leaders had come and gone in Lebanon, Iraq and Iran, for instance. Those shifts were, however, the product of world affairs unfolding well beyond the reach of local communities. Like the economic ups and downs occasioned by recent decades of modernisation, they appeared to follow push from “somewhere else”; somehow it was like a shadow moving on the surface.

A demarcating factor is that the Arab Spring has been genuinely “home-grown”. Countries in the West had been noisy in their cry for democracy, but the sound was hollow and in fact viewed as deeply hypocritical by the man in the street. The Arab Spring saw young people in these lands take action on their own. Those who claimed global leadership and who controlled the financial and media empires of the world appeared slow to react whereas the pace with which the events unfolded was staggering. As Western governments after only a brief pause started to speak out against the violence inflicted on the peaceful demonstrators in Cairo’s Tahrir Square, it was basically seen as an act of face-saving. In many people’s eyes, the Western powers remained opportunists, siding with the old dictatorial guard until the point that the rise of the people of the Middle East had become inevitable.

The landscape changed though as the Libyan regime faced open revolt and struck back without restraint. As Colonel Kadhafi exclaimed that the opposition was to be exterminated, the balance was tipped, causing China and Russia to withdraw their objections to external interference. The subsequent air-borne campaign, in which Western powers took the lead but were joined by some countries in the region itself, and also from elsewhere around the world, largely came across as a rare act of responsible statesmanship. Through this entire sequence of events, it was nevertheless clear that the critical initiative had indeed come from within the region itself, that a bottom-up movement had been capable of swaying world opinion and government positions at home as well as overseas in its direction, and that it had been able to do so over a very limited period of time.

In its first year, following on from its initial spark, the self-immolation of the frustrated and humiliated vegetable street vendor Mohamed Bouazizi in Tunisia, the Arab Spring spread with great force to Egypt, Libya, Yemen, Bahrain, and Syria. In all those countries, it put the leaders, many of whom had been around for decades, under severe pressure. While the impact was less dramatic elsewhere, its reverberations have prompted a tangible defensive response also from the regimes of Algeria, Morocco, Jordan, Kuwait, Saudi Arabia, and Oman (Iran is left aside here, as it already had its own uprisings since before the events in Tunisia, although those flared up again with reference to the developments across the rest of the region). In Qatar and Turkey, if anything, it has resulted in more intensive

political engagement to back broad reform agendas across the region, largely in support of the Arab Spring.

The roots of the Arab spring are clearly associated with frustrations over a lack of voice and the ability to have a say and to take individual initiative in building the foundations for a better future. Whereas modernisation and economic growth have generated significant trickle-down and diffusion of economic benefits to most of the indigenous people in the GCC countries, the rest of the region has had a lot less of this. Further, the dearth of diverse employment opportunities persists more or less across the board. Many in the overly young population are confronted with a bleak economic outlook. Following the diffusion of modern media coverage and communication tools, and with an increasing number of the growing generations attaining education, especially in the female part of the population, the absence of more qualified jobs has become highly visible and frustrations are on the rise.

Many elderly people grew up in a situation where the local Imam was the only teacher in a local community that had seen little change to its livelihood for generations. The young of today represent the first generation, at least outside the main city centres, that started out with electric street lights, paved roads linking villages across the barren land and car traffic outnumbering camels and donkeys. For them, it is natural to communicate in real-time through a headset with their peers across distance. They are not only the first to grow up with a telephone, but also with social networking and constant messaging such as Twitter—innovations whose launch on Arab streets is simultaneous with the rest of the world.

The impacts of modernisation have been more all-encompassing in Oman or the UAE than in Morocco or Libya. In Morocco, an estimated one-third of young girls still do not get to read and write, as adamantly traditional parents and relatives keep them away from primary school in rural areas. In most GCC countries, more girls than boys attain tertiary education—not only in progressive communities but even in a conservative nation such as Saudi Arabia.

Interacting on the Internet, boys and girls in the region can establish contact with others anywhere in the world, sensing the same boundless reach and opportunity. For most in the younger cohorts, even in peripheral rural areas, the new era contrasts with the past and they inevitably come to see the world differently than the elderly. At this moment, old ways and new means meet with greater flair and drama in the Middle East than virtually anywhere else.

## **2.3 Economic Structure, Development and Demography**

As can be seen from Table 2.1, the countries of the region display a strong variation in their economic development, as measured by gross domestic product per capita, and the progress of their respective dominant economic sectors. The countries with the highest income rates are small, and basically city states, i.e. Qatar and Kuwait. The remaining GCC countries are at a somewhat lower level, with Oman and, especially, Saudi Arabia stretching over an extensive geographic

**Table 2.1** Basic data MENA countries

Country	Population in millions (July 2011 est.)	Size (km <sup>2</sup> in 1,000)	State constitutional form	GDP per capita (PPP) in 1,000 (2010 est.)	Dominant economic sectors in % (2010 est.)
GCC Countries					
Bahrain	1.2 <sup>a</sup>	760	Constitutional monarchy	\$40.3	Agriculture 0.5 Industry 58 Services 41.5
Kuwait	2.6 <sup>b</sup>	17.8	Constitutional emirate	\$48.9	Agriculture 0.3 Industry 48 Services 51.7
Oman	3.0 <sup>c</sup>	309.5	Monarchy	\$25.6	Agriculture 1.6 Industry 51 Services 47.5
Qatar	0.8	11.6	Emirate	\$179.0	Agriculture 0.1 Industry 71.8 Services 28.1
Saudi Arabia	26.1	2,149.7	Monarchy	\$24,200	Agriculture 2.6 Industry 61.8 Services 35.6
United Arab Emirates	5.1 <sup>d</sup>	83.6	Federation with specified powers delegated to the UAE federal government and other powers reserved to member emirates	\$49.6	Agriculture 0.9 Industry 55.5 Services 43.6

(continued)

Table 2.1 (continued)

Country	Population in millions(July 2011 est.)	Size(km <sup>2</sup> in 1,000)	State constitutional form	GDP per capita (PPP)in 1,000(2010 est.)	Dominant economic sectors in %(2010 est.)
Other MENA Countries					
Algeria	35.0	2,381.7	Republic	\$7.3	Agriculture 8.3 Industry 61.6 Services 30.1
Egypt	82.1	1,001.5	Republic	\$6.2	Agriculture 14 Industry 37.5 Services 48.3
Iran	77.9	1,648.2	Theocratic republic	\$10.6	Agriculture 10.9 Industry 41.2 Services 47.9
Iraq	30.4	438.3	Parliamentary democracy	\$3.8	Agriculture 21.6 Industry 18.7 Services 59.8
Israel	7.5	20.8	Parliamentary democracy	\$29.8	(2008 est.) Agriculture 2.4 Industry 32.6 Services 65
Jordan	6.5	89.3	Constitutional monarchy	\$5.4	Agriculture 4.4 Industry 30.3 Services 65.3
Lebanon	4.1	10.4	Republic	\$14.4	Agriculture 4.7 Industry 16 Services 79.4
Libya	6.6 <sup>c</sup>	1,759.5	N/A	\$14.0	Agriculture 2.7 Industry 66.7 Services 30.5
Morocco	32.0	446.6	Constitutional monarchy	\$4.8	Agriculture 17.1 Industry 31.6 Services 51.4

(continued)

Table 2.1 (continued)

Country	Population in millions(July 2011 est.)	Size(km <sup>2</sup> in 1,000)	State constitutional form	GDP per capita (PPP)in 1,000(2010 est.)	Dominant economic sectors in %(2010 est.)
Gaza/West Bank	1.7/2.6 (July 2010 est.)	360/5.99	N/A	\$2.9 (2008 est.)	Agriculture 12 Industry 5 Services 83 (June 2008)
Sudan (excl. South Sudan)	45.0 <sup>f</sup>	1,861.5	N/A	\$2.3	Agriculture 44.6 Industry 45.3 Services 10.2
Syria	22.5 (July 2010 est.)	185.2	Republic under an authoritarian regime <sup>g</sup>	\$4.8	Agriculture 17 Industry 16 Services 67 (2008 est.)
Tunisia	10.7	163.6	Republic	\$9.4	Agriculture 10.6 Industry 34.6 Services 54.8
Turkey	78.8	783.6	Republican parliamentary democracy	\$12.3	Agriculture 9.6 Industry 26.7 Services 63.8
Yemen	24.1	528.0	Republic	\$2.7	Agriculture 8.3 Industry 38.5 Services 53.3

Source CIA World Factbook

<sup>a</sup> Includes 235,108 non-nationals<sup>b</sup> Includes 1,291,354 non-nationals<sup>c</sup> Includes 577,293 non-nationals<sup>d</sup> Estimate is based on the results of the 2005 census that included a significantly higher estimate of net immigration of non-citizens than previous estimates<sup>e</sup> Includes 166,510 non-nationals<sup>f</sup> Includes the population of South Sudan (8.3); demographic data includes South Sudan (July 2011 est.)<sup>g</sup> At the time of writing

area. Most of the other countries across the Middle East have distinctly lower incomes, though Israel is a highly developed country and Turkey, Lebanon and Jordan are considered relatively developed.

### ***2.3.1 On the Economic Structure***

As for the economic structure, the GCC countries and several others in the Middle East are blessed with natural resources, especially oil and gas, the exploration of which has generated a strong increase in foreign exchange revenue. A considerable share of these resources flows directly to government. In some cases, the returns have been highly concentrated among the few and also served to strengthen the standing of autocratic regimes and privileged interests at the expense of broader-based development. The concept of the so-called natural resource *curse* suggests that a windfall of foreign exchange earnings may in fact turn out negative for economic development. On the other hand, it is also clear that the GCC countries have experienced rapid growth and capacity building in several respects. In some countries, such as the UAE and Oman, the benefits have been widely shared among the indigenous population.

Not all countries have generated growth through oil revenue. Leaving Israel aside, the Emirate of Dubai, whose leaders encouraged the rise of a service economy and boosted real estate investment, achieved spectacular growth despite the absence of natural resource wealth. This included human resources as the indigenous population was very small, whereas immigrant labour has been admitted from (especially) Asia.<sup>15</sup> Several other societies have modernised rapidly too, notably Abu Dhabi (also in the UAE), Kuwait, Qatar and Bahrain. Oman has developed strongly as well, albeit starting out from further behind and with more emphasis placed on preserving its unique societal and cultural features.

The Saudi case is different. The country is modernising rapidly in regard to its infrastructure, real estate and city development. King Abdullah's leadership has also launched new universities and tried to enhance performances in education and in research—on terms that connect to and contribute to economic development in wider society. There are, however, significant issues to overcome. Perhaps most delicate is the role of women, who are strongly protected in Saudi society, by many viewed as oppressed, and expected to keep a low profile in societal affairs. For years, women have not been eligible for identity cards and are not allowed to drive a car. Their contribution in society outside the home and family spheres is thus strongly constrained. However, women today make up the majority of

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<sup>15</sup> The small indigenous population in these societies is strongly outnumbered by the immigrant workers, especially those from South and East Asia, which offer comparatively cheap labour while benefitting from incomes that are much higher than they can generally earn at home.

students in tertiary education, which inevitably creates pressure for greater female participation in economic and political life.

Income distribution remains strongly biased, even within the indigenous population. A 2011 report lists Saudi Arabia as the country with the highest concentration of ultra high net worth (UHNW) households in the world at 18 per 100,000, whereas illiteracy rates remain high and the number of poor and undernourished is increasing (UNDP 2009; Global Wealth Report 2011).

Moreover, while the GCC countries continue to be marked by high dependency on a few natural resources, they are also characterised by heavy public sector domination of the economy. The role played by the private sector, including new business development, is relatively weak. Today, all GCC societies, including Saudi Arabia, find themselves contemplating the need for transition from resource-based into knowledge-based economies, though they experience little of the industrial sector dynamism important for driving the economy of most developed countries. Many also have a rather high cost base (with the exception of their immigrant workforce). We will return in [Chap. 5](#) to the extent of these countries' investments in modern infrastructure, education and research.

### ***2.3.2 The Backlash***

The momentum that spread across the Middle East that we associate with the Arab Spring first radiated a sense of hope, pride and belief in a better future, especially among many of the young but across broader segments of society too, resonating with a growing aspiration across the region that ordinary people need to have a greater say. On the other side of the coin was a fear that things would be getting out of hand, somehow reflecting the strong common belief in the good of tradition and a deep-rooted faith in greater destiny.

The political, economic and societal outlook following the Arab Spring now presents a spectre of its own. The North African countries, at the forefront of the Arab Spring with their high income differences and large numbers of uneducated and impoverished people, have seen their infrastructure and economic fabric crumble. Conditions for business have been tightened in various ways, e.g., when it comes to profit expatriation, which has contributed to a drastic fall in access to capital. In several of the GCC countries, there were more or less widespread requests for improved wages or other benefits broadly among the population which, in some cases, were pre-empted by the governments' engaging in fiscal stimulus for short-term relief, including handouts to the unemployed. Saudi Arabia is a prime example. Most GCC countries have also created more government and civil service jobs. Some have increased minimum wages and raised student benefits. Several, including the UAE, Jordan and Oman, have dismissed large numbers of immigrant workers.

There have also been declarations on national dialogue to examine and discuss reforms. In Oman, Sultan Al Qaboos quickly strengthened the mandate of Majlis

Shura, which in effect represents a precursor of an elected parliament. In Morocco, King Mohammed VI likewise instituted increased parliamentary powers, though it is not yet known how comprehensive the reforms will prove to be nor whether they will go the whole way. King Abdullah of Jordan pledged political and constitutional reforms, but only within a 2 year framework.

The scope and final destination of the current movement is thus far from given. Many young and educated people in the cities experience a sense of having been liberated with regard to political and economic opportunities. Although new entrepreneurial initiatives have taken off, vocal traditionalist messages have flared up with a strong call for taking society in other directions. The local Mosque forms the centre of the community and an important platform for much reflection on societal issues. Notably in rural areas and among those with limited education, other channels for reaching out with a political message can hardly compete. Family bonds and traditions continue to matter throughout, more so than in developed countries, which went through the societal and economic transformation associated with modernisation much longer ago. Many citizens remain accustomed to stability being contingent on loyalty to unforgiving authority.

At least in the short term, the conservative counter-reaction has nevertheless been somewhat moderated, as demonstrated in the public elections and work on reforming the constitutional frameworks. This applies throughout Tunisia, Egypt and Libya, the three countries in which the ousting of previous autocratic regimes has been marked by sharp economic decline, paralleled by apparent commitments to establish fully ledged democracies. In Egypt, a state of fierce political infighting as well as domestic violence has given way to an elected president championed by the Muslim Brotherhood, apparently outmanoeuvring the Military Council. Whether the legacy of the Arab Spring will prevail remains to be seen.

As for alarming trends, however, pressures from segments of the population to strike against minorities, especially religious ones, reflect a weakening of tolerance and trust between different ethnic groups. The hardening climate includes intensified prosecution of Christians in several places. Again in Egypt, the Copts have expressed a deep sense of concern for their future in the country.

A dramatic feature of the Arab Spring has been the role of women at the forefront of the movement. Especially in Yemen, women who fought the regime also stood up in direct confrontation with the ruling patriarchal discourse. In the Maghreb, there is a mixed picture, as the aftermath of the uprisings has seen the rise of a more active women's movement in Algeria. In Morocco, on the other hand, a conservative reaction has pressurised women to fall into line with an orthodox social order. Whether the momentum is stoppable is another matter. The case of Amina Finali, a 16-year-old Moroccan girl who committed suicide after legal and societal pressures led to her marriage to the man who raped her, sparked a new movement. The sole female government minister, in charge of solidarity, women and the family, tried to tone down the affair but large numbers of women reacted with rage, again using social media to speak out against the prevailing order. Women's associations are gaining strength, petitions have been made and



actions taken against the various conditions that institutionalise violence against women. The parallel to the events that set off the Arab Spring itself is obvious.

Even in Saudi Arabia, some women have chosen to protest against the more or less official restrictions on what they can do in public. The protests include some women driving cars, in defiance of a state ban on female drivers. Swift action to put an end to these initiatives, including beatings and temporary jailings, have tempered the action but thus far not put it to rest. Another remarkable struggle concerns the role of women in sports. Preparing for the Olympics, the Saudi women's soccer squad went to great lengths to come up with a costume that did not breach the country's decency laws. They received a go-ahead from some officials, only for the Kingdom's then Crown Prince Najad to step in and urge the women not to participate, stating that physical exercise is not for women. If such views are to prevail, the consequences for female health and wellness will be dire, especially given Saudi Arabia's rapidly growing obesity and diabetes problems. With the sudden death of the hawkish Crown Prince just a few months later, in June 2012, however, the future course looks more open in the Kingdom. In the end, a few Saudi women did compete in the London Olympics, although in individual sports, i.e. judo and athletics.

Although the Arab Spring held up a promise to the world of a new impetus for change, the region may yet again slide into untenable conflict. The media are playing a significant role in trumpeting that message across the world. Viewed from outside, it can often be difficult to distinguish between and have a nuanced view of what happens in specific countries across the region. Oman, for instance, suffers from no internal religious friction and enjoys a sense of strong social inclusion, which means much less fertile ground exists for serious unrest and destabilisation compared with, for example, Bahrain, where the Shia majority has long been frustrated by a sense of discrimination at the hands of the Sunni majority.<sup>16</sup>

The lingering conflicts are strongly interwoven with economic contraction. Investment and exports are down in North Africa, and growth after the revolution set to come more from government consumption and less from exports and investment (World Bank 2011). In 2011, the Egyptian economy shrank by around 9 % as investment, consumption and exports fell sharply in all major sectors and some 600,000 jobs were lost. In Libya, GDP for 2011 is thought to have fallen by 50 % in real terms from the previous year. A significant decline is also expected from Syria, while Bahrain, Tunisia and Yemen had forecast negative growth of 1, 5 and 3 %, respectively (Bloomberg 2011; IMF 2011; World Bank 2011). Taking pre-emptive action, the GCC countries have offered higher minimum salaries, increased public subsidies on basics such as food products, and created more public sector jobs.

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<sup>16</sup> In February 2011, Oman did experience demonstrations and riots in the coastal cities of Salalah and Sohar. The regime responded with minimal force, however, received strong support from the majority of the population and instituted a range of reforms (Andersson 2012a).

The Libyan economy has naturally imploded under the burden of civil war but could produce a sharp turnaround if a unifying government can bring the ravaged country together. It is striking that even countries such as Jordan have experienced a marked drop in demand, and Oman at least temporarily reported an increase in public sector demand but a drop in private sector employment. Official economic estimates anticipate it will be at least two more years before the Middle East sees a genuine recovery, while in reality the region's current trajectory poses considerable risks for prolonged decline.

Suffering traders and business people have cried out for stability and workers who have lost their jobs naturally feel desperation. The younger generation can, in the absence of counteraction, expect even fewer employment opportunities ahead, except privileged individuals destined to join public services or established businesses, especially in oil and gas. On the whole, the regimes in power are short of plans and ideas how to generate the kinds of jobs that are being asked for by the growing number of increasingly educated people who will enter the workforce in the coming years.

### ***2.3.3 The Demographic Issue***

Across the MENA region, traditionally high mortality levels began to decline in the late nineteenth and early twentieth centuries. Fertility levels (births per woman), on the other hand, did not fall much before the mid-1960s and even mid-1970s. The second half of the twentieth century—particularly the last two and a half decades—saw explosive population growth throughout the region. Annual population growth peaked at 3 % in about 1980. The current figure hovers around 2 %, which is lower than in the past but still well above the world average (Roudi 2011).

On average, the Middle East currently has the second youngest population of all regions in the world, after sub-Saharan Africa. Approximately one-third of the total population is currently below the age of 15. A further third is aged between 15 and 29 (Chaaban 2010). Fertility rates have remained particularly high in more densely populated but poorer countries such as Iraq and Yemen.

Rapid population growth in some ways represents an opportunity. Young people mustering energy for new initiatives may, for instance, push for adjustment and action that benefit society. At the same time, there is the task of expanding the education system and other services and societal functions required to harness the new generations, while managing the costs of the transition. With tens of millions of young people now set to enter the region's workforce over the next decade, the stakes are high.

## 2.4 The Spectre of Unemployment

The pressures of a rapidly growing population manifest themselves in many ways. Lifestyles and consumer behaviour have for some taken on flamboyant features, capitalising on the increasing financial means made available by the exploitation of natural resources and growing regional economies. Although there are signs of increased awareness and interest among the young to take account of the environmental issues that keep worsening as a result of uninhibited consumerism, thus far there are few avenues to turn such sentiments into meaningful action. Meanwhile, the arrival of modern society, including changing social relations, eating habits and physical activity, has been accompanied by health issues that take root early in life and which are partly new to the region. These issues are returned to in [Chaps. 11 and 12](#).

Most conspicuous today, however, is the rise of youth unemployment. Whereas youth aged 15–24 make up 30 per cent of the region's working age population, a quarter or so are unemployed, compared to about 14 per cent in the OECD in recent years (UNDP 2009; Dhillon and Yousef 2009). In fact, the Middle East now demonstrates the lowest youth labour participation rates of all regions worldwide, with an estimated 35 % in work compared to the global average of 52 % (e4e 2011). In the absence of a marked improvement in labour market outcomes, society has to bear lasting high costs for failing to absorb and activate the growing generations in the labour market.<sup>17</sup> As can be seen in [Table 2.3](#), youth unemployment already puts a significant strain on national budgets, and the economic aspects combine with the social and political. Young people who feel left out and have their dreams and visions shattered may fall into despair and decay or seek alternative routes in life.<sup>18</sup>

Costs are also on the increase because girls do increasingly well in education and now represent the majority of university students in many countries, but are overrepresented among the unemployed. They are also particularly tilted towards public sector work due to the orientation of their studies as well as social preferences, whether their own or those of close relatives who want to see them in a particularly safe and stable work environment.

[Table 2.2](#) indicates the massive challenge that lies ahead in reducing overall unemployment across society, and even more so in combating youth unemployment. This is applicable to most of the GCC countries, although Qatar and UAE are exceptions.

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<sup>17</sup> It is not possible, and hardly meaningful, to try and put precise numbers on the economic loss. According to some studies though, the current numbers amount to at least US\$ 40–50 billion annually across the Arab World, equivalent to the total GDP of countries like Tunisia or Lebanon (World Bank 2008).

<sup>18</sup> This does not mean that they resort to organised military revolt and terrorism en masse. As shown by Cole (2009), the vast majority of Muslims have no sympathy for organisations such as Al Qaeda whose platform for take-up of recruits is limited. The violent street protests against what is perceived as the provocations of Western media, culture and societies, for all their visibility, likewise engage only a tiny share of youth in Arab societies.

**Table 2.2** Youth versus overall unemployment rates (latest year available)

	Country	Youth (15–24) unemployment (%)	Overall unemployment (%)
GCC	Bahrain	20.1 (2001)	15.0 (2005)
	Oman	N/A	15.0 (2004)
	Kuwait	11.3 (2005)	2.0 (2005)
	Qatar	1.6 (2007)	0.4 (2011)
	Saudi Arabia	28.2 (2009)	10.9 (2011)
Other MENA countries	United Arab Emirates	12.1 (2008)	4.0 (2008)
	Algeria	24.3 (2006)	9.7 (2011)
	Egypt	24.8 (2007)	12.2 (2011)
	Iran	23.0 (2008)	15.3 (2011)
	Iraq	30.0 (2012)	15.0 (2010)
	Jordan	27.0 (2009)	12.3 (2011)
	Lebanon	22.1 (2007)	9.0 (2007)
	Libya	22.0 (2010)	30.0 (2004)
	Mauritania	N/A	30.0 (2008)
	Morocco	21.9 (2009)	9.2 (2011)
	Syria	19.1 (2007)	8.1 (2011)
	Tunisia	30.7 (2005)	16.0 (2011)
	West Bank/Gaza	46.9 (2009)	23.5/40 (2010/2011)

*Source* Authors' compilation of statistics based on World Bank data, CIA World Factbook and UNCT Iraq, latest year available

The damage inflicted on human capital partly depends on the duration of unemployment (Ryan 2001). Unemployment terms are generally shorter for youth than for adults, reflecting the natural tendency of young people to move between jobs (O'Higgins 2003). In some MENA countries, however, the evidence suggests that unemployment periods tend to be longer for youth, especially for those that are educated, who may require more time to find a job match for their skills (Kabbani and Kothari 2005).

At the same time, the Middle East relies heavily on low-paid immigrant workers from Asia to undertake a wide range of production and service jobs that are beyond the capabilities or interest of local workers. At the other end of the spectrum, well-paid professionals notably from Europe, the United States and some Asian countries, fill specific knowledge gaps.

In both cases, the local economies run up huge efficiency gains, although there are also significant capital outflows due to workers' remittances. As governments and many employers favour the local population in the workplace, however, promotions commonly bypass merit and competency as the basis for attaining high-paying jobs. Family ties and gender weigh heavily.

Drawing on its long history and rich experience of how to benefit from close ties in Asia and Africa, Oman has pursued its own strategies to lessen its dependency on foreign workers while still taking advantage of immigration. In order to break with traditions of weak work ethic, the government has actively encouraged employment

**Table 2.3** Estimated cost of youth joblessness in the Middle East as a percentage of GDP, 2004

Country (2004 est.)	Total (%)	Male (%)	Female (%)
Qatar	0.6	0.1	0.4
Egypt	7.3	1.5	5.7
Jordan <sup>a)</sup>	4.1	0.9	3.3
Lebanon	2.7	0.4	2.0
Syria	9.1	1.2	8.1
Total MENA	6.6	1.3	5.3

Source Target unemployment rate adults, Chaaban (2008)

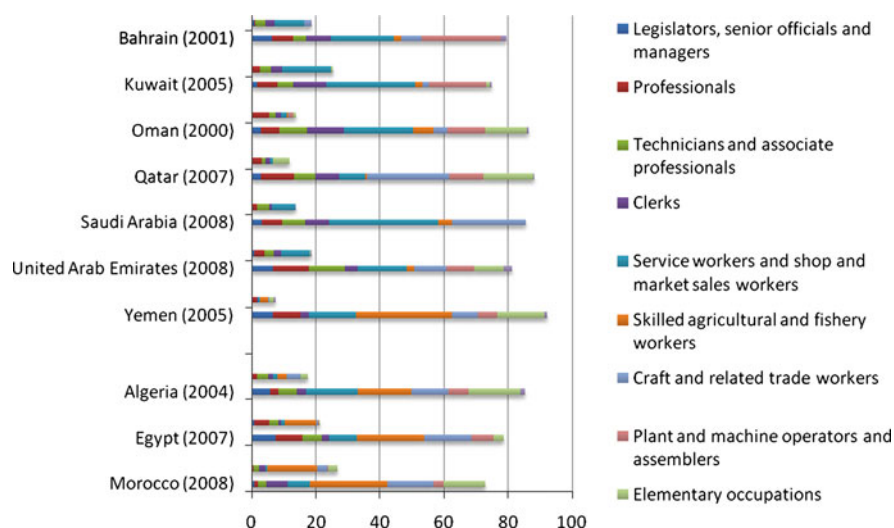
<sup>a</sup> Numbers for Jordan from 2002

of native Omanis across a range of professions. In some cases, such as taxi driving, jobs have been reserved for locals. Other professions are more or less ascribed to certain foreign nationalities, such as hair care for Lebanese and manicure for Filipinos. It is obligatory for each immigrant to have a local sponsor who carries certain responsibilities for their well-being but whose dominating status frequently positions them to squeeze maximum rents out of their protégés. Oman has continued to rank lower than most of the other GCC countries in labour force work ethic at company level (Global Competitiveness Report 2011/2012).

Again, a drive to find more jobs for locals has meant that many immigrants were forced to leave. In some cases locals took on the jobs that consequently became available, but in other instances organisations lost critical capabilities that could simply not be replaced, adding to the hardships of a mismatch between skills required and those offered by available recruits.

As Table 2.3 shows, unemployment costs as a share of GDP are estimated to be particularly high for women, and dramatically so in Egypt and Syria, two countries that have experienced some of the most intensive turmoil during the Arab Spring. Whereas female workers are now basically as educated as males in parts of the labour market, they work in strikingly different sectors and positions, as seen in Fig. 2.1.

In the wealthier labour-importing GCC countries women are generally relatively prominent in the “service workers and shop and market sales workers” sector, followed by the professionals sector. In poorer countries, a clear majority of the women active on the labour market are engaged in agriculture. The type of available work largely reflects the economic structure, as noted above. Other features are at play as well, however. Compared to men, women are subject to different social and also personal constraints. They are concerned with the limits of working life to accommodate a role as a mother, they display low labour force participation and, especially in rural areas, suffer from poor access to educational opportunities. Their employment pattern across sectors in the Middle East differs more from that of men than is the case in other regions. The current trend towards an increased share of women in tertiary education is putting traditional values and attitudes under pressure, even though women’s skills remain unequally represented and under-

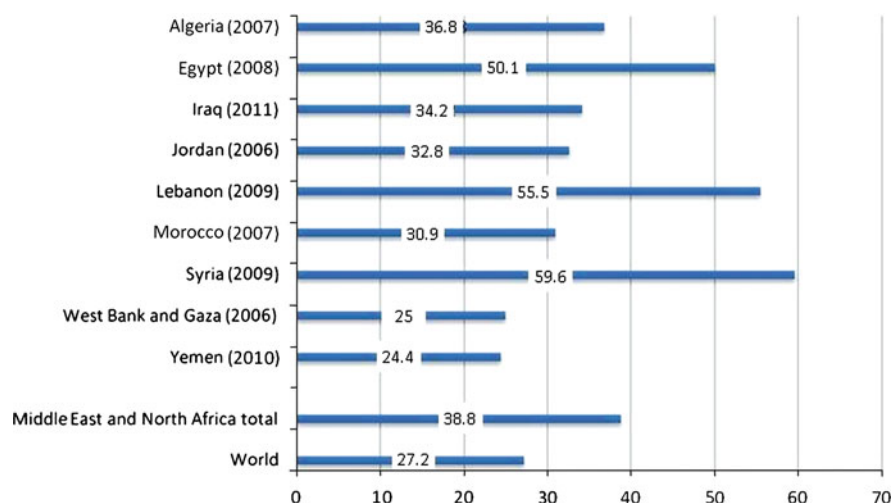


**Fig. 2.1** Employment by occupation and country, latest year available), (women/men in per cent of total labour force). *Note 1* the data for Saudi Arabia display the last four categories under the common label craft and related trade workers and the data for Yemen display categories 2 and 3 under the common label Professionals. *Note 2* the data for women are presented in the upper lines for each country; those for men are presented in the lower lines. *Source* ILO LABORSTA, *Topic* employment—2C total employment, by occupation (thousands) <http://laborsta.ilo.org/STP/guest> (accessed 3 and 14 April 2012)

appreciated in the labour market. Table 2.3 conveys that significant gains can be made from integrating youth in the labour market, and notably young females.

Other mismatches are of a geographical nature. Across the MENA countries, 3 % of the land mass houses 92 % of the population, reflecting the rapid urbanisation of recent decades. A large young urban population is looking for employment, while opportunities for advanced jobs are sorely lacking in rural areas. Based on surveys such as that reported in Fig. 2.2, compared to the global average, a relatively large share of employers sees the lack of adequate education and skills as an obstacle to business development. Only a third of graduates are said to have the readiness and skills required for employment—a much lower number than in other regions (Roudi 2011). Employers stressed not only insufficient theoretical knowledge but a lack of soft skills: creative thinking, communication, problem-solving, initiative-taking and leadership. Meanwhile, only one-third of the young people in the MENA region believe that they possess the right knowledge and skills for the demands of the labour markets (e4e 2011). An inadequately educated workforce is rated as the third most important obstacle to business development in Egypt and Saudi Arabia. Egypt is ranked as low as 133rd worldwide in talent utilisation efficiency (Global Competitiveness Report 2011).

Furthermore, an estimated 29 % of the labour force is employed by the public sector, which is way above the world average. Governments account for an even



**Fig. 2.2** Percent of firms identifying an inadequately educated workforce as a major constraint in enterprise surveys. *Source* <http://www.enterprisesurveys.org> (accessed 15 April 2012)

higher share of total employment expenditure (ILO 2009). Various reports suggest the public sector remains the preferred employer for the young generation because it is viewed as offering high-status, stable lifelong employment and privileged access to social networks, pensions and even subsidised real estate (Dhillon et al. 2009).

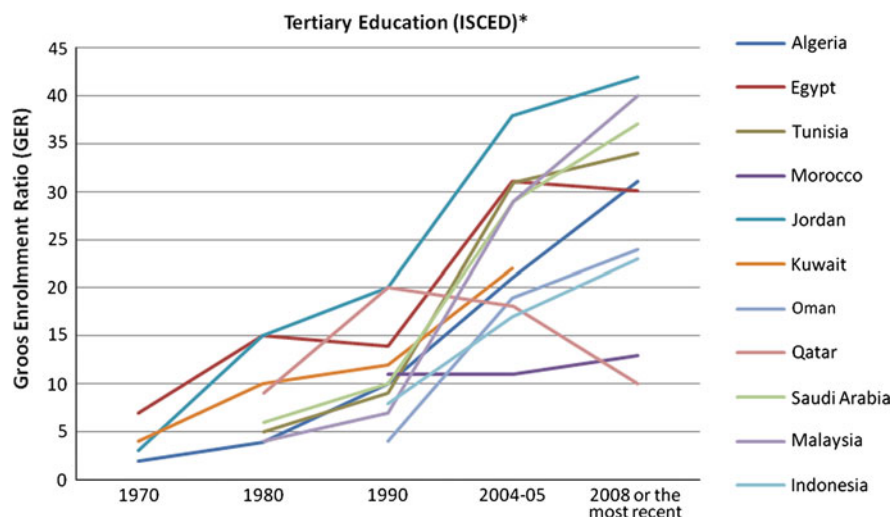
## 2.5 Education and Employment

Education has a key role to play in shaping an appropriately skilled, creative and innovative workforce and is a prerequisite for driving a modern, knowledge-based economy.

A competitive higher education sector that is effectively plugged into an international context is crucial for building an environment conducive to innovative activities, with both the public and the private sector influencing outcomes. In the MENA region, financial investment in education has by no means been neglected: an estimated 5 % of annual GDP is devoted to education (World Bank 2008).

As for primary education, most countries demonstrate a stark improvement in enrolment rates compared with a few decades ago, though current levels range from 95 (e.g. Algeria) to less than 40 % (e.g. Palestine) (Salama 2009). In secondary education, there has been a similar advance, though the region still lags behind.

In higher education, however, much of the MENA region keeps trailing the wider world. This applies even in comparison with most developing regions, with the exception of sub-Saharan Africa. On the plus side, higher education enrolment reportedly increased by two-thirds between 1990 and 2000 (ILO 2008) and the



**Fig. 2.3** Gross enrolment ratios in tertiary education. *ISCED* International Standard Classification of Education. Gross Enrolment Ratio (GER) designates a nation's total enrolment "in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education" (2005, "gross enrolment ratio"). While the UNESCO definition of tertiary education does not include all forms of postsecondary education (i.e., their classification scheme also accounts for an intermediate level of "postsecondary non-tertiary education"), their figures for tertiary GER help illustrate the discrepancies in higher education opportunities. (UNESCO 2005. Glossary. [http://portal.unesco.org/education/en/ev.php-URL\\_ID=36028&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=36028&URL_DO=DO_TOPIC&URL_SECTION=201.html)). Source UNESCO Institute for Statistics 1970–2010

long-term trend points towards continuous growth (Fig. 2.3). We are also seeing greater willingness to invest in education both from governments and other stakeholders.

The large number of new Higher Education Institutions (HEIs), including branches of Western universities, is indicative of changes under way. In Saudi Arabia alone, there has been an increase from eight to more than 100 universities in the past decade (Romani 2009). In Qatar, a new knowledge hub branded the Education City promotes itself as having the world's largest concentration of top-ranked universities in a single area (Buckner Stanford 2011). The region's universities and higher education centres have also climbed the international league tables. Following a recent spurt, five HEIs in the region were represented among the world top 1,000, with King Saud University in Riyadh the leader in 186th place. Saudi Arabian universities were also ranked 302nd, 790th, 955th and 1,000th (Webometrics 2011a). Meanwhile, the Academic Ranking of World Universities for 2011 by Shanghai Jiao Tong University put six Middle Eastern universities in the world top 500, compared to just one in 2003, with a further increase expected



(University World News 2011).<sup>19</sup> Whether this rise is part of a broader boost to innovative research and technological development is another issue.

The MENA region still has only two research institutions in the world top 500, compared with 267 for North America and 167 for Europe (Webometrics, 2011b). Middle Eastern countries claim only a small percentage of the world's total scientific publications and patent filings and continue to rank low in innovation indices.

The international league tables are normally more indicative of research performance than achievement in education. The swift rise of some universities in the GCC countries in the international rankings further reflects strategies to engage foreign researchers in particular publication activities, rather than the onset of a broader research culture. Having said that, establishing internationally ranked universities of high class certainly gives countries greater scope to inspire, attract and retain top talent. Raising general educational quality nevertheless remains a formidable challenge.

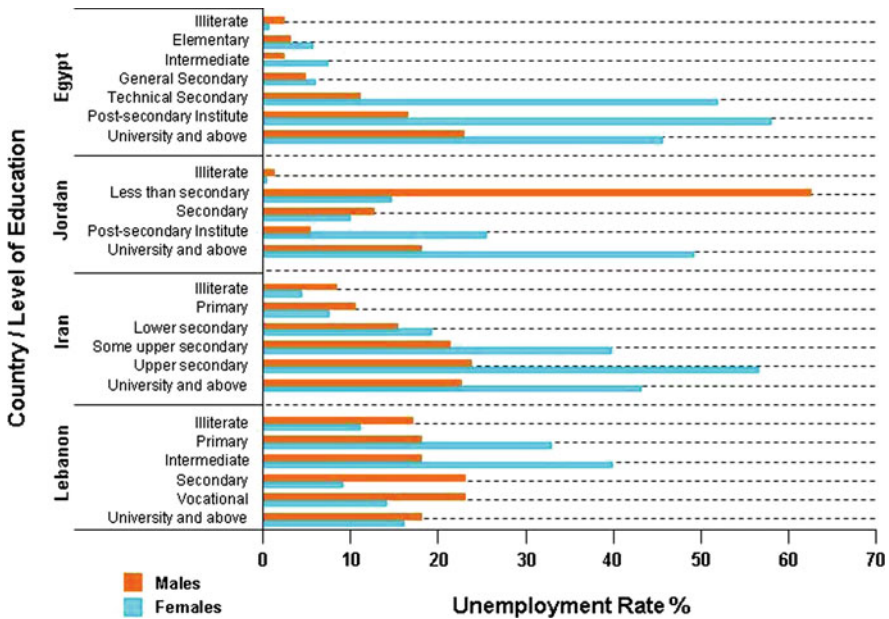
Education is normally viewed as one of the most important weapons to deploy against unemployment. However, the education systems of the MENA region have been described as everything from rudimentary to traditional, with an emphasis on repetitive learning and a focus on preparing new generations for public sector employment. In countries such as Morocco and Jordan, the unemployment rate is higher today among those with tertiary education qualifications than among less qualified people. In Morocco, 31.1 % of people with tertiary education backgrounds were unemployed in 2006, compared to 4.5 % of people with only primary education backgrounds (Emperador 2010). In several other countries, such as Egypt and Iran, unemployment is higher among people with secondary education (cf. Fig. 2.4).

Given the weakness of social welfare systems in these countries, low income households cannot afford not to be working and so are occupied in low-paid and informal forms of employment, with low productivity and earnings potential. At the other end of the spectrum, the higher education system is insufficiently matched with labour market needs. Many graduates from higher education thus meet with poor employment opportunities, and almost invariably more so for women than for men. One quarter or more of women with university education were for instance unemployed in Jordan, Egypt, Algeria and Iran a few years ago (World Bank 2007), and the levels are most probably considerably higher in some of them today, following the Arab Spring. Behind this situation lies weak demand for skilled workers (lack of skill-intensive growth) coupled with, as already noted, cultural preferences favouring civil service employment and work at home, with public sector employment considered more "appropriate". Given the increasing share of women in higher education, it is imperative to counter this situation (see further below).

Governments have encouraged youth to gain an education by guaranteeing a public sector job upon study completion (Assaad and Roudi-Fahimi 2007; Roudi

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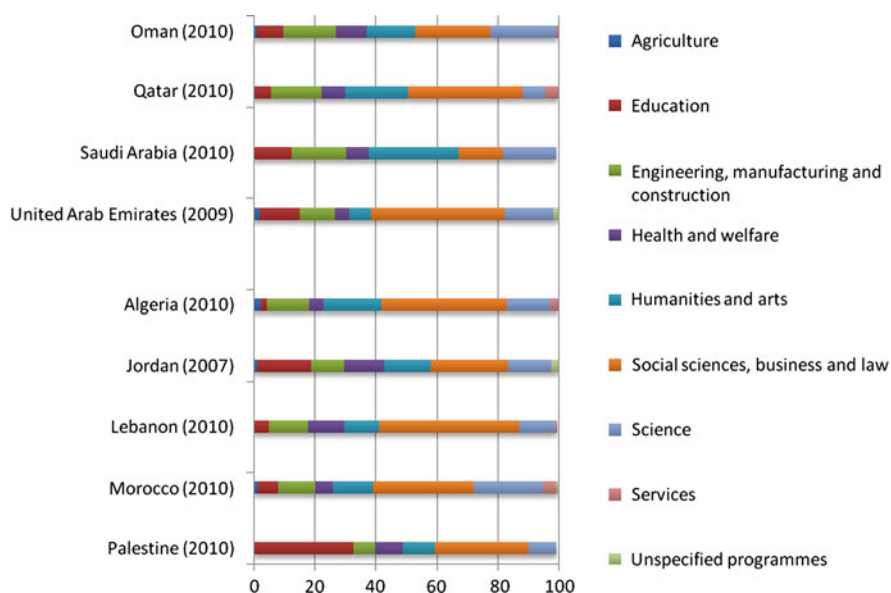
<sup>19</sup> <http://www.universityworldnews.com/article.php?story=20110819175018254>



**Fig. 2.4** Unemployment rates by level of education in selected Middle Eastern countries. *Source* Dhillon and Yousef (2009)

2011). This legacy continues to influence mindsets and attitudes. Surveys indicate that many unemployed educated young people in the MENA region do not hold realistic perspectives on their future role in the labour market in terms of salary and the jobs for which they are eligible. The wages expected by graduates for instance often exceed the average wages actually offered to workers with similar educational credentials already in employment. Many graduates may thus be classified as “voluntarily unemployed”, waiting for public sector employment and unprepared to accept other kinds of work due to their perception of status or prevailing wage levels (Chaaban 2010).

Safe bets such as accountancy, law, medicine or fields of study leading to public sector employment are the favourite choices for top talent in the Middle East (e4e 2011). As seen in Fig. 2.5, social sciences, business and law are overrepresented in all of the countries surveyed by UNESCO. The region also has a notably higher percentage of graduates in education and humanities compared to other developing regions. Arts, humanities and social studies, mostly designed to provide a straight road into public sector employment, are over-represented: between 71 and 76 % of graduates from HEIs have studied these subjects in Djibouti, Morocco, Oman, Saudi Arabia and the West Bank and Gaza (World Bank 2008). Teaching as an occupation has become regarded as a desirable profession, according to one survey, because it is considered as leading to a job within the public sector. As is indicated by Fig. 2.5, there is a tendency among the relatively wealthy GCC countries to expand higher

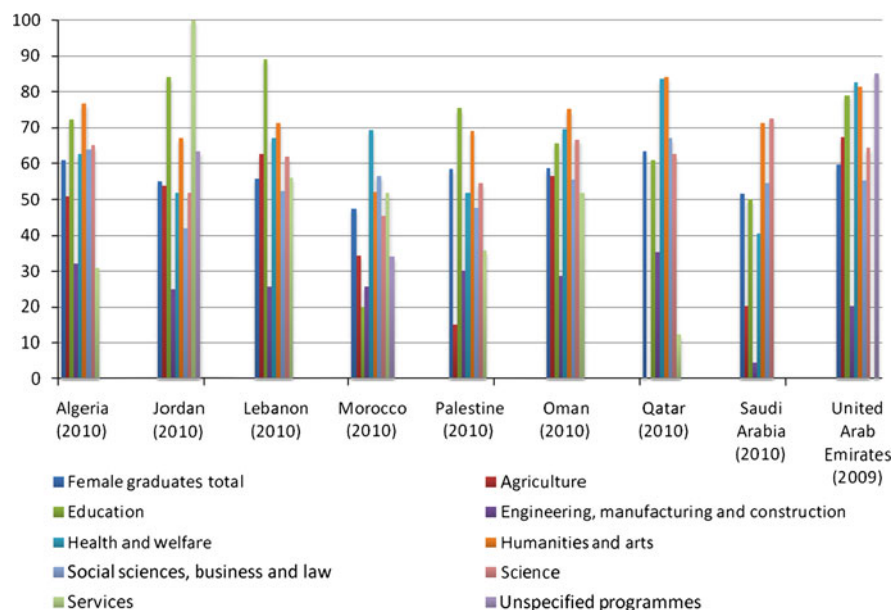


**Fig. 2.5** Percentage of tertiary graduates by subject (latest year available). *Source* UNESCO Institute for Statistics <http://stats.uis.unesco.org> (accessed 15 April 2012)

education more in engineering and also in science, compared to the other countries in the region. As is seen from Fig. 2.6, the share of women remains small in engineering, however, especially in Saudi Arabia and UAE.

The importance of attaining quality in education must be repeatedly emphasised. It appears that the skills of youth in the region have not improved to mirror the patterns in other parts of the world. Critical thinking, practical skills and an entrepreneurial mindset appear less valued than strictly theoretical knowledge (see Arab Human Development Report 2009; Chaaban 2010; Dhillon et al. 2009; e4e 2011; World Bank 2008). Fundamental challenges remain. Basic literacy rates have improved dramatically in recent decades. Morocco is a partial exception as one-third of girls in rural areas reportedly still do not get to read and write. But even for those who do, syntax is a problem that complicates learning. This is the case especially in the francophone countries of the Maghreb due to a common mismatch between the Arabic and French languages that the school system has largely failed to address. Whereas most children have Arabic as their mother tongue, many have French as their main language of learning at school and lack the readiness to bridge the gap. Teachers also lack training in how to help students straddle the divide.

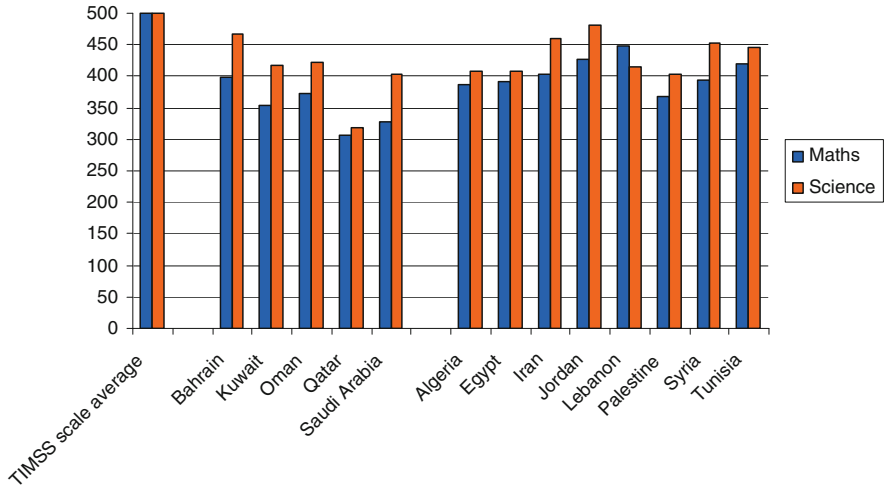
Special attention needs to be paid to soft skills. While a problem-solving approach to education has become increasingly prevalent in other parts of the world, preparing students with the creative and analytical skills needed for a knowledge economy still has low priority among the MENA region's educational institutions at compulsory, secondary and higher level (ILO 2008). Lecture-based



**Fig. 2.6** Percentage of female graduates in tertiary education (latest year available). *Source* UNESCO Institute for Statistics <http://stats.uis.unesco.org> (accessed 15 April 2012)

learning by heart and fact memorisation is accompanied with stringent discipline and an absence of problem-solving teamwork or discussion between students and teachers. Much of the learning material used is out of date and has not kept up with scientific developments (Arab Human Development Report 2009; Assaad and Roudi-Fahimi 2007). It is also worth noticing the absence of focus on students' different prerequisites for and ability in absorbing knowledge and the need for a more individual-based perspective on learning (World Bank 2008). According to a McKinsey study, teachers have usually been recruited from the lowest performing third of secondary school graduates, a fact that does little to encourage higher quality teaching (Barber and Mourshed 2007). In Oman, whereas the educational sector was supported and vigorously expanded, Omanisation policy meant that qualified foreign teachers were dismissed and less experienced and capable local ones charged to take over.

A comparison revealed that baccalaureate exam questions in biology and mathematics in France required students to analyse and apply their knowledge to empirical problems whereas equivalent tests in the MENA region rather asked for memorised hard facts and standard procedures (e4e 2011). Furthermore, when compared worldwide, the MENA region's students attain significantly lower test results in mathematics and science compared to other regions. As seen in Fig. 2.7, no country in the MENA region lived up to the trends in international mathematics and science study (TIMSS) scale average. The high percentage of MENA students failing to meet the lowest performance benchmark indicates that they possessed



**Fig. 2.7** Average mathematics and science scores of eighth-grade students, by country: 2007. *Source* National Centre for Education Statistics

only basic or little knowledge in these areas of study (Dhillon et al. 2009). Except for Bahrain, levels were particularly low in the more affluent GCC countries, underscoring the impression of major quality problems in their educational systems, despite their greater investments in education.

These results are alarming given that competencies in engineering, mathematics and science are generally viewed as indicative of the extent to which the work force is bestowed with the skills that are required for a successful knowledge economy. In the presence of major quality problems in the educational system, longer time spent by children in school may be outright counter-productive. Meanwhile, there is a lack of encouragement and preparation for entrepreneurial activity. This is not merely about gaining acquaintance with the issues that arise when one is trying to start up new businesses, but more broadly a question of attitudes to risk, experimentation and novel ideas.

The role of ICT in education is salient in this context. Young people in the MENA region are by no means unfamiliar with or uninterested in ICT, as exemplified by the uprisings in which social media played an important and dynamic role. Several studies attest to a positive development in ICT use throughout the region, particularly among the GCC countries (Arab Human Development Report 2009). The number of internet users in some of the Gulf countries exceeds the EU average. As for mobile penetration rates, those in the GCC countries now belong among the highest in the world.

Nevertheless, clear signs suggest that the educational effort around ICT is unsatisfactory throughout the school system. Teachers, particularly in public schools, are not up to date and lack opportunities for retraining. Many tend to classroom autocracy—teacher knows best and students should listen and not argue

unless they want detention. In ICT, however, all the evidence shows that children, given the opportunity (and often even if not), are fast bypassing their parents and teachers in knowing the latest applications. Teachers who see their standing threatened and do not know how to modify their authoritarian approach while maintaining authority through other means risk losing all and breaking the faith of the young in their elders in more ways than one.

As this example—which has widespread applicability—shows, the quality problem does not merely reside in technical skills, and how subjects are taught. Their true nature has to do with rigidity and outdated practices. Students in the MENA region are often required to choose their future trail for higher studies and make their professional choice already in secondary school, leaving little or no flexibility to change direction later on (World Bank 2008). Many students in effect choose a traditional path in which they lack a genuine interest, out of solidarity with their mentors and coupled with ignorance.

The educational systems of the MENA region are thus overly focused on repetitive learning and do too little to foster the soft skills that are critical for creativity and innovative thinking, as is needed in the evolving knowledge-based society. There are, however, signs of change. A shift seems to have occurred away from curricula that rely on routine and non-participatory learning to those that promote problem solving and application of knowledge. Some countries are granting universities greater autonomy, allowing them to reorganise their curricula, introduce new types of programmes for different populations (e.g. skills upgrading, alternative paths of study), and sometimes introduce fees for specific training opportunities. However, the degree of implementation of these changes varies widely, with Jordan and Iran (rather than the GCC countries) reportedly having gone the furthest (Assaad and Roudi-Fahimi 2007).

## 2.6 Concluding Remarks

This chapter has reviewed some of the historical and cultural context and economic and societal factors behind the Arab Spring, alongside the immediate issues of politics, governance and the desire of individuals (especially the young) to have a say in their own lives.

The region has been at the centre of world affairs for much of human history and has attained a significant role in developing and making use of new knowledge. In the last few centuries, however, it has fallen behind in these respects and now commands a very small base in science, technology and innovation, as will be extensively discussed in the following chapters. Colonisation and the subsequent harsh transition phase through which the region has attempted to regain its footing have been followed by the hegemony of autocratic regimes. Several countries in the region leapt ahead and presented development models of diverse nature, not least in the GCC where several states have attained high income levels. In many cases, however, economic and societal progress did not filter down to the

wider populace. Frustrations have been growing, notably in North Africa, forming part of the backdrop for the Arab Spring.

We have further taken note of the dramatic demographic outlook for the MENA region, including the high numbers of young people approaching working age. Mismatches between the skills that are attained through education and the needs of society appear for various reasons, such as geography, economic structure, quality problems in the educational system, behavioural factors such as jobseekers' expectations and a hesitation in the jobs market to engage females.

Young people must be equipped with the skills and capacities that they need in order to grasp available employment opportunities and also so as to adjust and evolve in response to future labour market demands. There is also a need for reasonable conditions for enterprise development, entrepreneurship and start-up activity.

In closing, this chapter has touched upon the rich and highly diverse historical, cultural and societal factors that characterise the vast region at stake here. Ways forward and solutions to meet current challenges can only be formulated, adopted and carried through on the ground by and with the people of the region, building on the region's own specific strengths and opportunities. Yet the journey cannot occur in isolation, without a foundation of research and quality education, and inevitably it forms part of the rapidly integrating and changing wider world.

**Acknowledgments** The authors are thankful to Qammar Abbas, Karin Björk, and Sara Johansson de Silva for their substantive input and analysis that contributed to this chapter.

The Real Issues of the Middle East and the Arab Spring  
Addressing Research, Innovation and Entrepreneurship

Andersson, Th.; Djeflat, A. (Eds.)

2013, XX, 440 p., Hardcover

ISBN: 978-1-4614-5247-8