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# WORKING PAPERS

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**Musa McKee**, **Martin Keulertz**, **Negar Habibi**, **Mark Mulligan** and **Eckart Woertz**

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## ABSTRACT

The Middle East and North Africa is one of the world's most rapidly transforming regions, politically, economically, demographically and environmentally. Despite largely declining total fertility rates, the momentum of absolute population growth will mean that the region surpasses China in terms of total population by 2090. Land degradation, water stress and trends of urbanisation will also have significant impacts upon the future development of this region. In contending with the coming social, ecological and climatic shifts facing the region, policymakers will need to effectively capture the multi-faceted dynamics of these challenges but also opportunities. This paper outlines the key demographic and economic trends and transitions underway across MENA countries as material factors informing the efficacy of future policy responses to these emergent trends. Demographic trends in age-specific and gender ratios are discussed, before exploring transitions in fertility rates, migration, conflict, social welfare and urbanisation along with the possible implications of such transitions. Later, key economic factors are assessed, including correlations between resources endowments, labour market performance (particularly rates of youth unemployment), public debt and expenditure figures, and trade performance indicators. Considered together, a sub-regional disaggregation of these economic factors is presented, characterising emerging trends and challenges across the region and its broader integration into the global economy.

## INTRODUCTION

The Middle East and North Africa (MENA) region is vast, rapidly transforming and heterogeneous. Since 2011, the region has experienced an eruption of conflict in several Arab countries. What was termed the "Arab Spring" led to a series of wars and conflict in countries such as Syria, Iraq, Libya and Yemen. Domestic strife and foreign intervention have led to "failed states" across the region (Müller et al. 2016, Kinsman 2016). This report provides an analysis of underlying material risks and opportunities that contributed to the Arab uprisings. Two of the key issues that have been and will continue to face the MENA region are demographic change and economic factors. Despite the many shared features among MENA countries, there is comparatively little regional integration or policy coordination on joint demographic and economic policies in comparison with many other regions.

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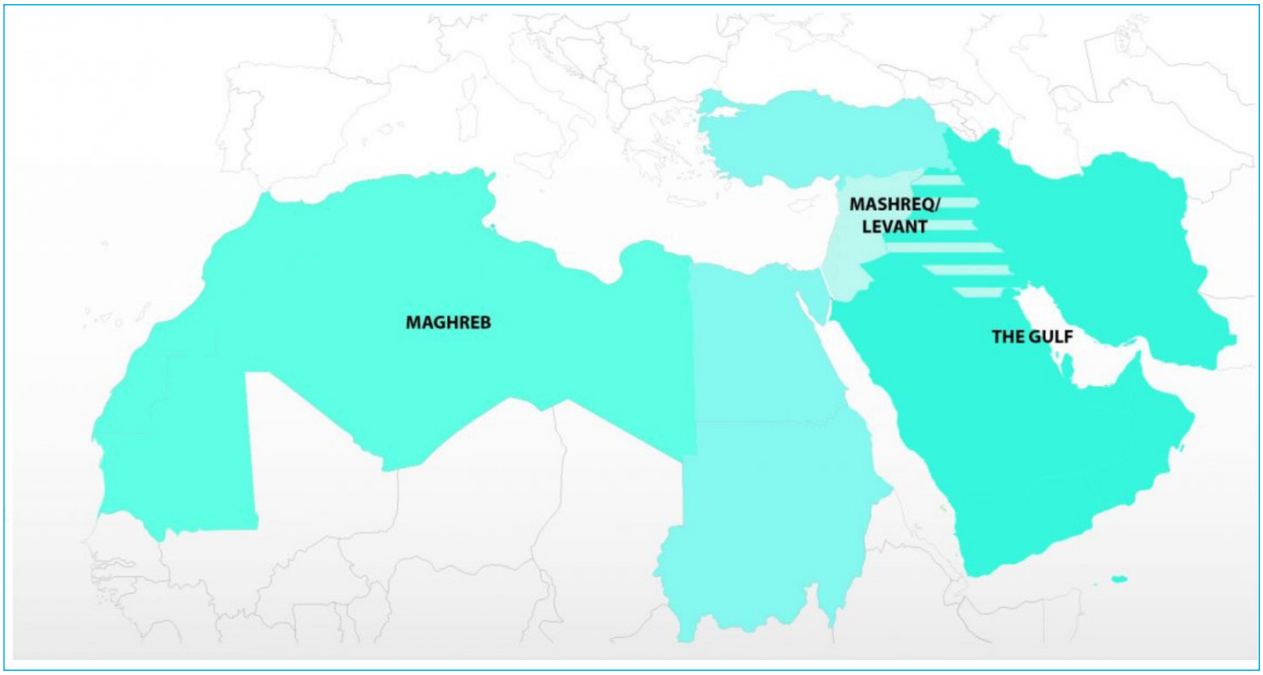
This report provides an overview of demographic and economic material factors and emerging trends in the MENA region. By shedding light on key population statistics, the study first provides an overview of the strong population growth and migration patterns in the region. This feeds into an analysis of future population trends in the region up to the year 2100 to illustrate a more refined picture, based on total fertility rate (TFR) development and associated population dynamics. The determining role of population dynamics and the endowment of natural resources has long been acknowledged. However, shifting demographic patterns and economic exigencies create new development and security environments, with new challenges and opportunities for local populations and policymakers.

The economic section of the report provides an analysis of economic indicators and development of the MENA labour market and of globalisation and trade patterns. This shows that population developments will be a key challenge for economic decision-making in the MENA region. The current economic model lacks dynamic private sector involvement in job creation, causing continued economic inertia in the region.

In sum, the study identifies key demographic and economic choke points in order to provide recommendations for future interventions by the European Union (EU) and its member states to ensure political and economic stability for the 1 billion people who will live in its southern and south-eastern neighbourhoods by the year 2100.

**Figure 1** | Overview of MENA region




Source: MENARA Project, September 2016, http://www.menaraproject.eu/?p=74.

There are competing definitions of the MENA region and it is not always clear which countries are included under the umbrella term. Sometimes Mauritania and Turkey are included, for example, and sometimes not. Hence it is important to provide some geographical clarification. The MENA

region as defined by the MENARA project covers a vast area comprising Mauritania, Morocco, Algeria, Libya, Tunisia, Egypt, Oman, Yemen, Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Kuwait, Iraq, Iran, Sudan, Syria, Jordan, Lebanon, Occupied Palestinian Territories, Israel and Turkey (see Figure 1).

For the purposes of this project, sub-regions have been identified, including the Maghreb countries in North Africa, the Mashreq countries/the Levant plus Turkey, the Gulf countries plus Iran in West Asia, and Egypt and Sudan. The MENARA study region is Europe's southern and south-eastern neighbourhood. This is a key area for current and future foreign policymaking owing to its strategically important geopolitical role in the world and its demographic and economic prospects. This can be easily grasped from the ten take-away messages that we distil in this paper.

### TEN TAKE-AWAY MESSAGES ABOUT THE DEMOGRAPHIC AND ECONOMIC PROSPECTS OF THE MENA REGION

1. MENA's population will be double that of Europe by 2100, with more than 1billion people.
2. MENA's population will be bigger than China's by 2100.
3. The demographic trend in the MENA region is towards a gradually ageing society.
4. The majority of MENA countries are resource-poor and labour-abundant.
5. Youth unemployment is one of the key economic challenges in the MENA region.
6. MENA economies are still not sufficiently diversified.
7. Moving away from exploiting oil and gas resources to industrial development holds great opportunities.
8. Public debt levels are increasing in resource-poor and labour-abundant economies.
9. MENA economies need greater investment in STEM subject skills (science, technology, engineering and mathematics) to prepare the younger generation for labour market demands.
10. The demographic and economic perspective of MENA is challenging, but there is also a "demographic dividend" if policies are steered towards economic inclusion of the younger generation.

## 1. DEMOGRAPHIC FACTORS

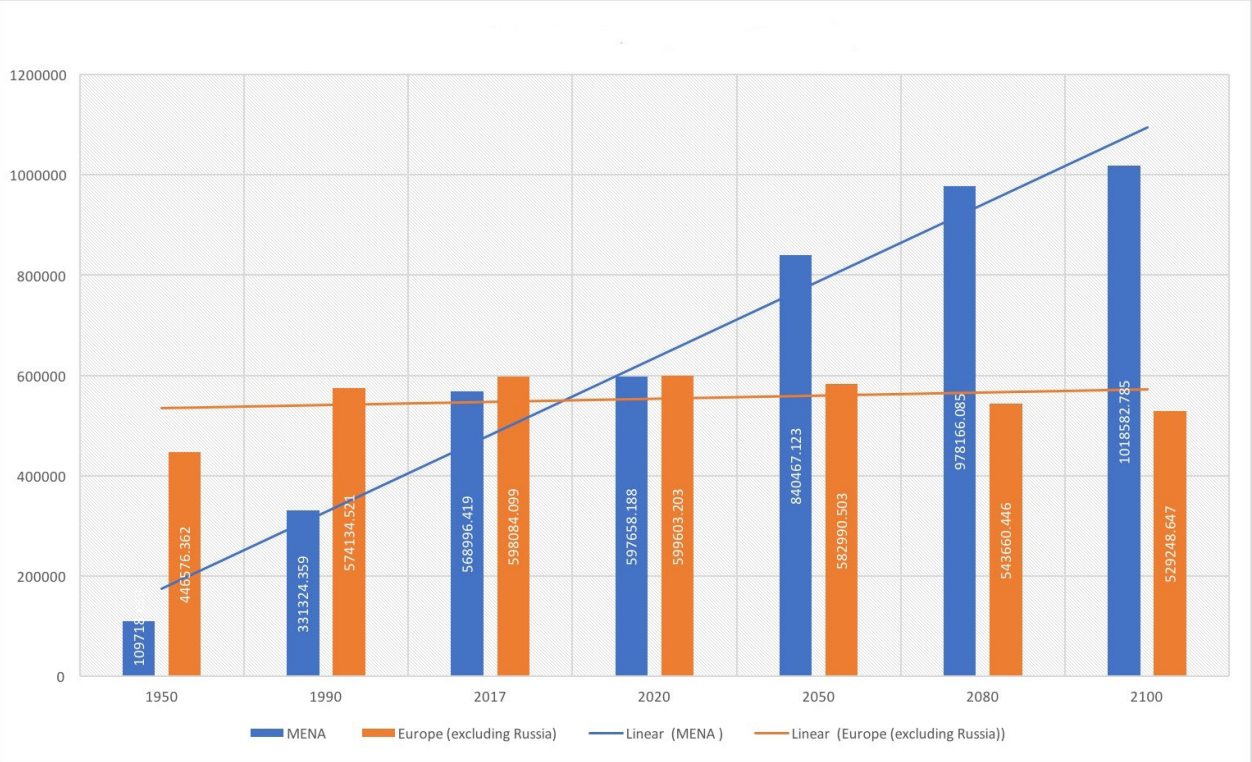
### 1.1 EMERGING TRENDS

From the 1950s, many states across the region have pursued state-led models of development, supported by substantial public investment and often populist social policies (Cammett et al. 2015). State efforts to extend social welfare provisions, improved per capita physician ratios and life-expectancy, and declining maternal and infant mortality rates helped lead to half a century of rapid population expansion. Other countries, such as Israel and the Gulf states, saw rapid rates of migration from within the region and from Europe, North America and South Asia. However, from the mid-1960s, most countries across the region went through a "demographic transition" (see Gillis et al. 1992), where TFR began to decline, in part related to increased levels of education, family planning, urbanisation and shifting patterns of migration.

### 1.1.1 ABSOLUTE POPULATION SIZE

The total population of the MENA region has increased fivefold since the 1950s, from just under 110 million in 1950 to 569 million in 2017 (UNDESA 2017). Despite generally declining rates of fertility (discussed below), absolute population numbers are expected to further double to over 1 billion inhabitants by 2100, according to medium variant projections (Figure 2). By the end of the century, therefore, there will be more people in the MENA region than in China, whose population is expected to continue to shrink to just over 1 billion; and more than in Europe, the population of which is expected to recede by approximately 10 percent by 2100 (see Figure 2).

**Figure 2** | Total regional population across Europe (excluding Russia) and MENA, 1950–2100

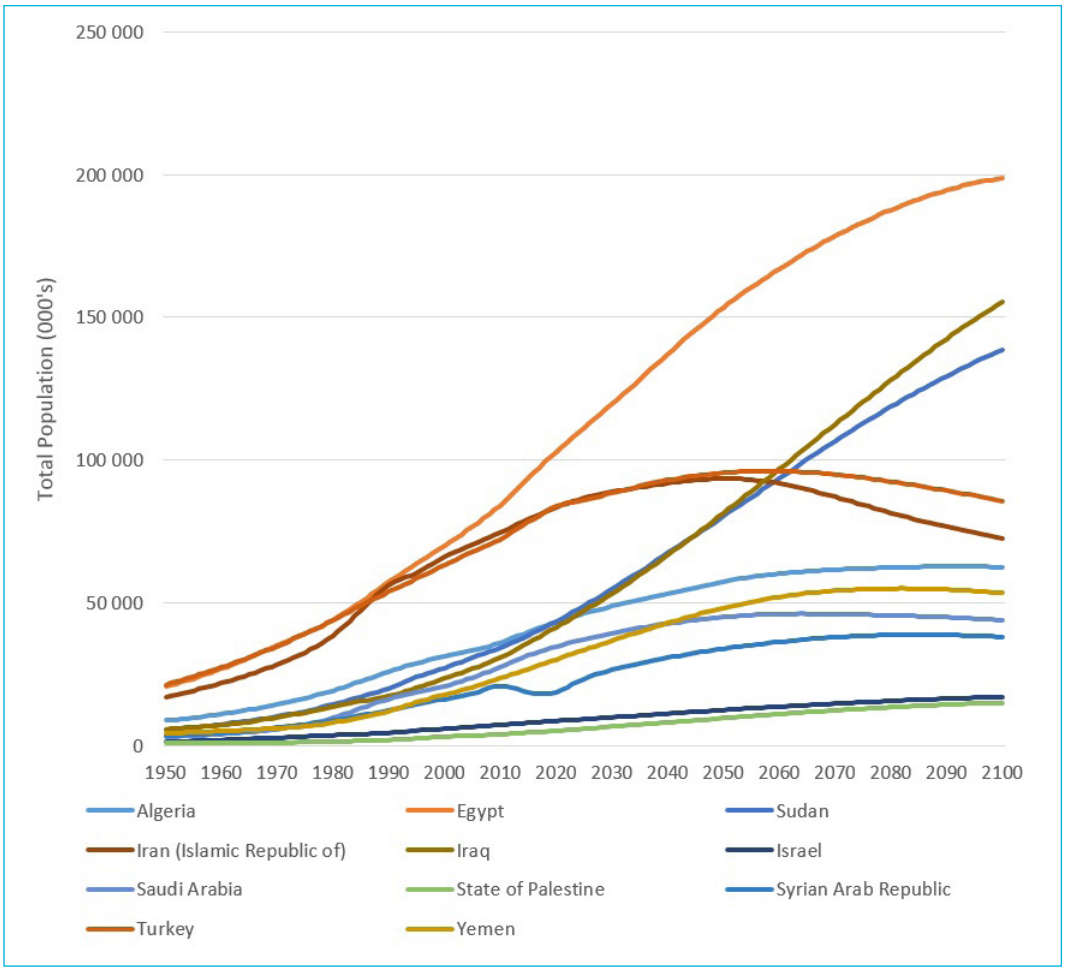



Source: UNDESA (2017).

The largest absolute contribution to the regional increases in population will come from countries that are already experiencing demographic transitions to varying degrees. Egypt, Iraq and Sudan will continue to be prominent population centres across the region, despite a declining TFR (Figure 3). This effect – of increasing absolute population, despite declining rates of fertility – is due to population *momentum*, which is generated by the high proportion of women of child-bearing age – even whilst the number of child births per woman has declined considerably. For example, although family planning policies have by and large been considered successful in Egypt – with fertility rates declining from five children per woman in 1982 to just over three in 2002 – the population momentum has meant that Egypt's total population tally has continued to increase dramatically and the TFR has started rising again since 2000. Today, Egypt's population already exceeds 97 million, and will remain the most populous country in the region in 2050 with some 154

million inhabitants (UNDESA 2017). Accordingly, Egypt, Iraq and Sudan will become increasingly prominent population centres across the region, in comparison with Turkey, Iran and Morocco for instance, which have lower fertility rates, or smaller nations in the region, such as Mauritania and Yemen, which currently have the highest fertility rates in the region (Figure 4). Egypt, Iraq and Sudan are expected to house 49 percent of the region's total population by 2100 – 199 million, 156 million and 137 million respectively, in comparison to just over 31 percent currently (UNDESA 2017). Together with Syria and Turkey, more than 60 percent of the region's populations will be dependent upon the Nile, Euphrates and Tigris river basins by 2100, compared with 48 percent today. This increased dependence on international rivers, often as downstream riparians, will have significant implications for the viability of supporting the likely increases in agricultural, industrial and municipal water demands, impacting transboundary governance, rural livelihoods and regional food security. Within these absolute increases in population, transitions are also anticipated in the sex ratio and age-specific ratios, which will further influence the implications of these increases.

**Figure 3** | Total population (both sexes combined) of selected countries, annually for 1950–2100 (thousands)

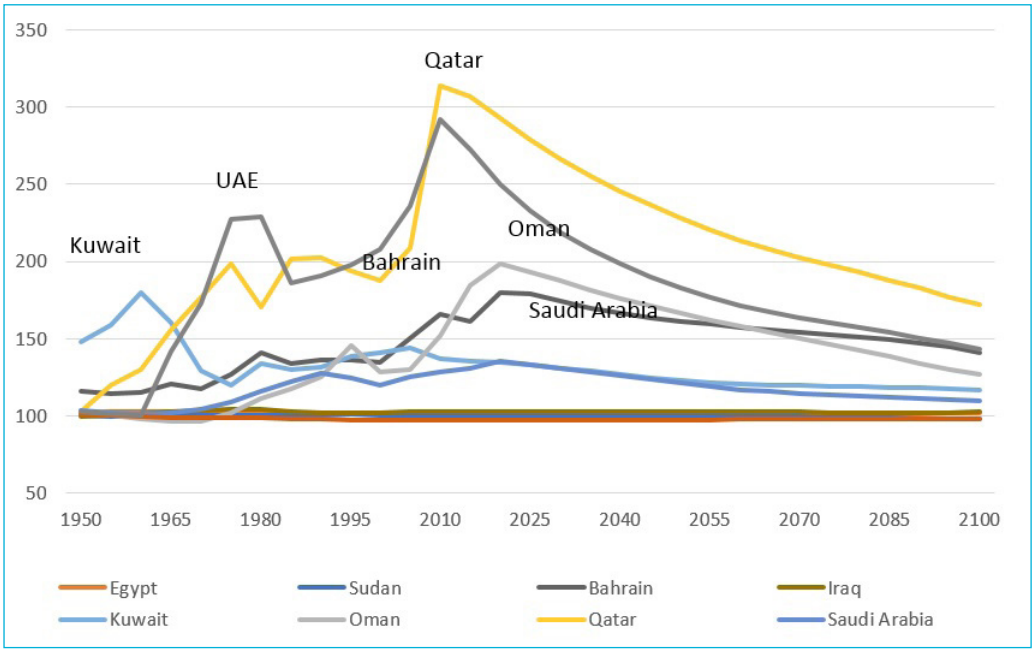



Source: UNDESA (2017).

### 1.1.2 GENDER RATIO

Exploring total populations by sex reveals that the female population of 54 million in 1950 rose to 277 million by 2017, and is expected to increase further to 504 million by 2100. The male population has increased from 55 million in 1950 to 292 million by 2017, reaching 514 million males by 2100 (see Annex 3). The male population is thus marginally higher, with a gender ratio of roughly 51 percent male and 49 percent female, more than would naturally occur. Figure 4 shows a general increase in the ratio of males per 100 females in the Gulf countries. Economic migration to the oil-producing Gulf states has had a discernible impact on gender ratios within the sub-region, especially from the late 1970s and with a significant increase since the oil boom of the 2000s. Return migration from outside the region has also been identified as one of the plausible factors contributing to this trend. In addition to the economic opportunities presented by the oil boom of the 2000s, greater travel restrictions from the region to Organisation for Economic Co-operation and Development (OECD) countries following the 2001 attacks on the World Trade Centre in New York are understood to have been followed by native Arabs returning to the MENA region (Saxena 2013). Projections beyond 2017 would indicate a decline in the male skewed sex ratio between 2010 and 2100 as inward migration of expatriate male labour force is expected to slow (UNDESA 2017). In part, this downturn in male migration workers bound for Gulf Cooperation Council (GCC) countries, and the subsequent impact on the sex ratio, is understood to be a consequence of lower oil prices and the associated economic impacts. Combined with this, the increased effort to diversify GCC economies away from petro-chemical and industrial to service sectors, and national programmes focusing on encouraging native labour force growth, are expected to further dampen rates of inward migration (Martin and Malit 2017).

**Figure 4** | Sex ratio – males per 100 women – of selected MENA country populations, 1950–2100



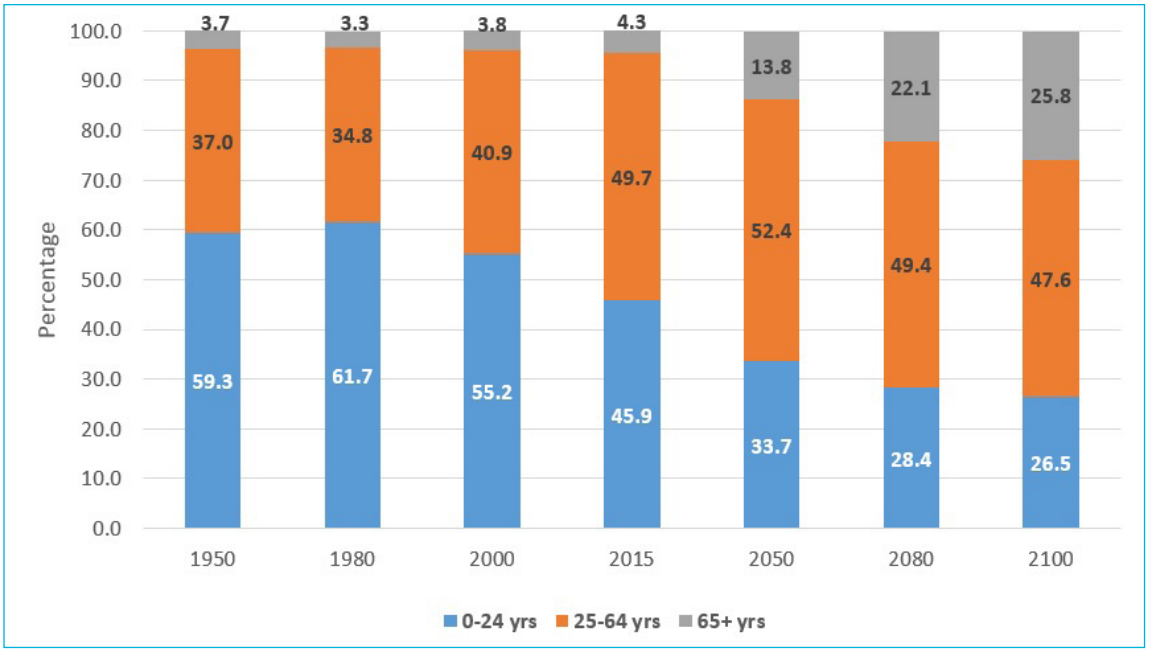

Source: UNDESA (2017).

Despite these higher ratios among mostly GCC countries, across the region as a whole, the birth rates of female and male populations between 1950 and 2016 reflected those of the total population. The ratio of male survivors to females above the age of retirement for the region has continued to decrease since 1980, partly owing to the high male death tolls of the Iran–Iraq War (1980–8), the First Gulf War and other conflicts across the region. While age-specific sex ratios appear relatively stable below twenty-five years of age, for age groups above sixty-nine years old these ratios diverge sharply (UNDESA 2017). The recent conflict in Syria, however, has seen an eight-year reduction in life expectancy for men relative to a reduction of just over one year for women (Loichinger et al. 2016). This trend of fewer men surviving to older age than women implies that greater numbers of women are likely to be widowed or simply have proportionally higher levels of dependency among the older age categories than men (UNDESA 2017).

### 1.1.3 AGE-SPECIFIC RATIOS

Age-specific ratios provide an important insight into both current and future trends of demographic transitions in the MENA region. The age-structural trends across the region illustrate that despite the absolute population growth numbers, the MENA region is going through a similar age-structural transition as other world regions (see Annex Table 1). Whereas today, the region is endowed with a young population in which the age groups 0–24 and 24–64 form approximately 95 percent of the entire population, this picture is to shift dramatically over the coming decades. The fastest-growing age group is the group beyond sixty-four years of age (Figure 5). These figures highlight compositional transitions in the percentages of child dependents and those of working age, and emerging patterns of demographic ageing.

**Figure 5** | Age structural transition, MENA countries, 1950–2100




Source: Annex 2.

As residents of the region age, their social needs and potential economic contributions transition (Loichinger et al. 2016). The age-specific structural transitions currently under way across MENA countries inform the character and effectiveness of government policies, public planning and social cohesion. The relative reflexivity of governments in the region to respond to the evolving requirements and priorities of expanding societies will in part determine the effects of these demographic transitions. As such, social protection systems in the region face a double burden of needing to both extend and improve upon services offered to youth of working age, and prepare these systems to meet the evolving needs of ageing populations (Loichinger et al. 2016). However, in the short-term future, the MENA region is experiencing a youth bulge that requires specific policy attention.

## YOUTH BULGES AND LABOUR MARKETS

With the rapid increase in total populations since the 1950s, the MENA region has experienced an exceptional "youth bulge". As a result of declining fertility, the youth bulge peaked in North Africa in the 1970s and in the Middle East in the 1990s (Cammett et al. 2015), still the relative size of youth in the overall population remains high for the foreseeable future. The Arab Human Development Report of 2016 was specifically devoted to the role of youth in current Arab societies. It concluded that the current Arab youth population is "the largest, the most well educated and the most highly urbanised in the history of the Arab region" (UNDP 2016). In 2015, almost half of the total population were under the age of twenty-four (Figure 5), and more than 60 percent under thirty years old (UNDP 2016). Despite this trend, large youth populations present particular challenges in developing countries. Correlations between youth unemployment rates, conflict and civil unrest have been drawn, particularly in developing countries where the capacity to generate educational and employment opportunities and avenues for political participation are limited. Education rates improve the potential for inclusion in "legitimate" labour market activity, whilst "incapacitating" youth from engaging in unlawful activity (Grogger 1998). This is further elaborated in Section 2.2 However, of those under thirty involved in the Arab uprisings that swept across the region in 2011, better educated youth were more likely to participate in protests than the unemployed, as feelings of relative deprivation were particularly prevalent in this demographic subset (Paasonen and Urdal 2016). Youth unemployment, youth bulges and education were identified as critical contributing factors leading to the Arab uprisings (Paasonen and Urdal 2016). Conflict-stricken countries in the region, such as Yemen, Syria and Iraq, are expected to continue to hold large youth populations (UNDESA 2017). Iran, Turkey, Tunisia, Lebanon, Saudi Arabia and Egypt will instead see their youth as a share of total populations decline at a faster rate, not least owing to faster-ageing populations (UNDESA 2017).

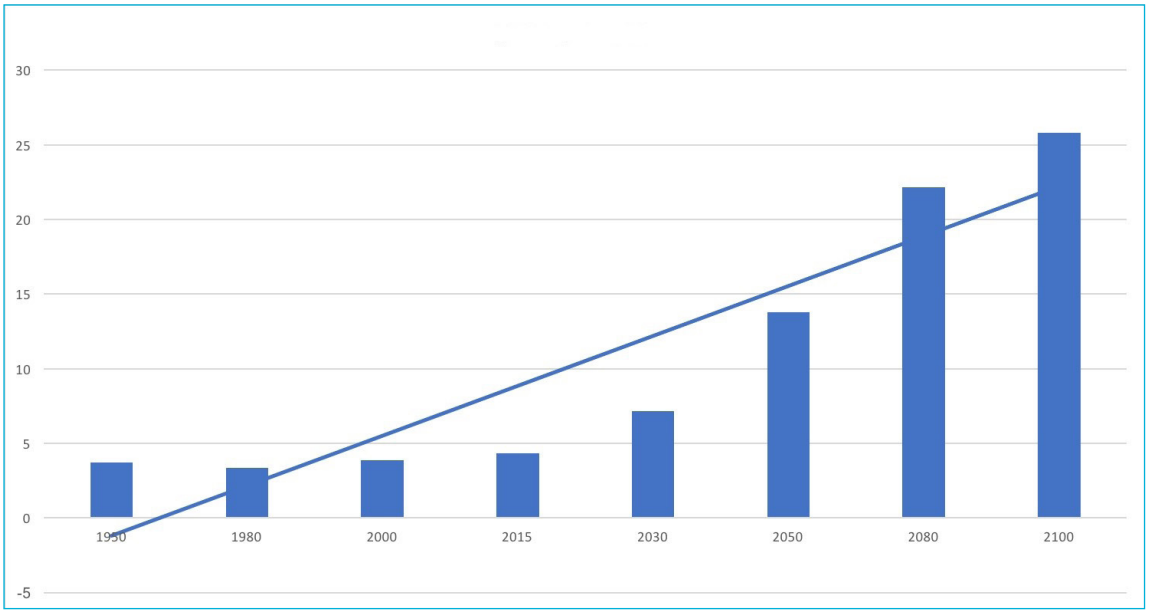
Poorly functioning labour markets and the absence of lawful economic opportunities are likely to make illicit, informal economic activities more attractive. While youth unemployment rates are universally higher than the average unemployment rates of many world regions, the MENA region has significantly higher and indeed widening levels of youth unemployment rates. Similarly, whereas education is seen to contribute positively to the likelihood of employment the world over, the MENA region is distinguished in that those who have obtained higher levels of education face similar levels of unemployment as less-educated people (ILO 2015). Effectively mobilizing the increased size of this rapidly expanding labour force is a critical component in determining the broader social implications of population growth across the region, and capturing the potential

*demographic dividend*.[2] Issues of youth unemployment may also more significantly affect countries already afflicted by social conflicts. The character of youth transitions from education to employment, from dependants to heads of households, will be determined by government capacities to provide relevant, quality education and vocational training, health and reproductive health services, and social protection products such as unemployment insurance schemes and income support (ESCWA 2017). And as youth proportions begin to decline across the region, the successful engagement of the youth population in gainful employment will become increasingly important in preparation for demographic ageing.

## DEMOGRAPHIC AGEING

During the second half of the twentieth century, improvements in medical care and public health measures resulted in rapid increases in life expectancy, particularly across developing countries. Most spectacularly, Lebanon for instance saw an increase in the country's average life expectancy from sixty-seven to almost eighty years in the period from 1990 to 2015 (ESCWA 2017). Part of this success story is owed to the end of the Lebanese civil war, yet dramatically improved healthcare services with access to modern medical technology have contributed to this life expectancy revolution in both Lebanon and the entire region (ESCWA 2017). However, this is likely to incrementally impact societies in the MENA region. The general downward trend in TFR (discussed fully in Section 2.2.1) has also resulted in a relative decline in dependent children as a proportion of the total population. The interplay – between declining fertility and mortality rates – has resulted in an increase in demographic ageing (Figure 6).

**Figure 6** | Age-specific ratio for all MENA countries aged sixty-five or over

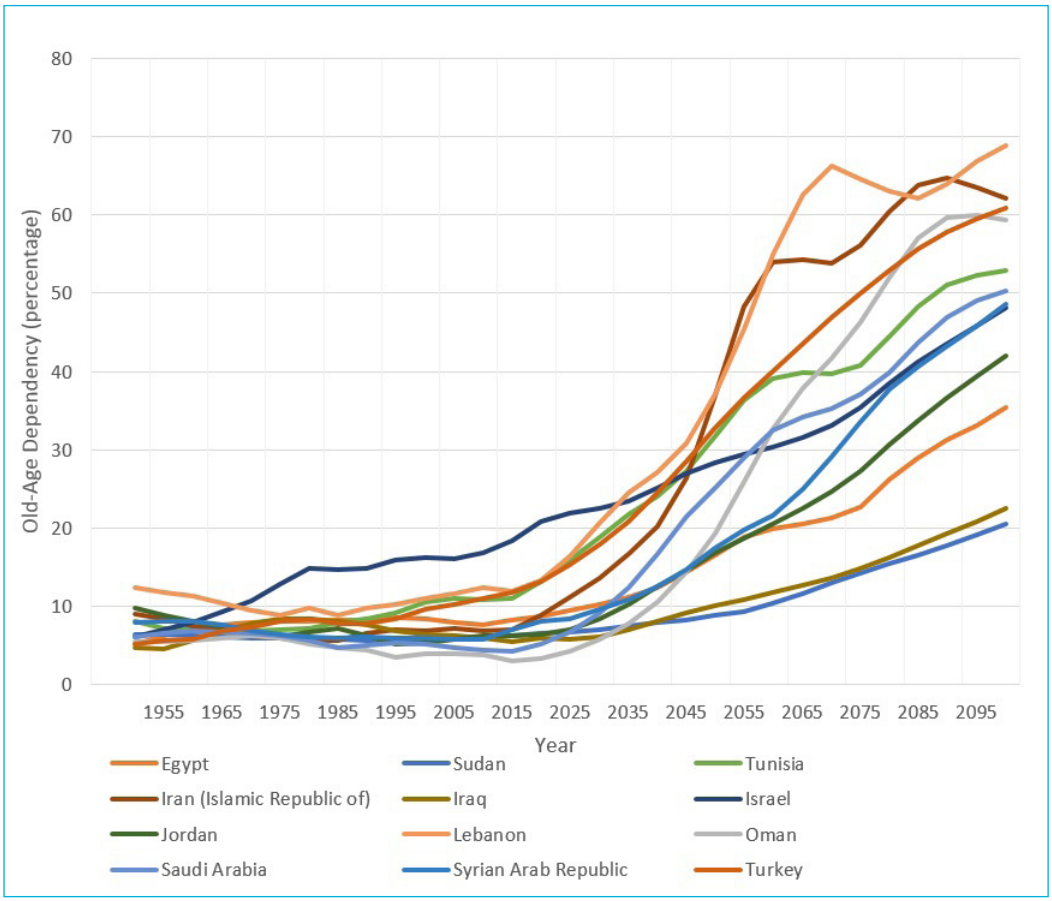



Source: UNDESA (2017).

2 Discussing the demographic dividend, Lee and Mason (2006) note: "At an early stage of this [demografic] transition, fertility rates fall, leading to fewer young mouths to feed. During this period, the labor force temporarily grows more rapidly than the population dependent on it, freeing up resources for investment in economic development and family welfare. Other things being equal, per capita income grows more rapidly too."

In combination with other factors, such as return migration to other regions, and the emigration of working age populations, these shifts have further increased the old age dependency ratio (Saxena 2013). This ratio represents the dependency burden relative to economically active age groups, understood as the proportion of the population aged sixty-five years or older in relation to those of working age (fifteen to sixty-four years old). Figure 7 illustrates shifts in dependency levels of MENA countries from 1950 to 2015, and as projected through to 2100.[3] In 2015, Israel, Tunisia, Turkey and Lebanon had the highest proportions of residents over sixty-five years, relative to the populations of working age (Annex 2). From 2050, populations in Iran, Turkey, Lebanon and Oman are expected to see the highest increases in the old age dependency burden from among MENA countries. Tunisia for instance, is expected to see its old age dependency ratio increase from 6.9 percent in 1980 to 15 percent by 2025, and further to 54 percent of the population by 2100.

**Figure 7** | Old-age dependency (percentage) of MENARA countries, 1950–2100




Source: Annex 1.

Despite further improvements in fertility and mortality rates, the six GCC countries are expected to experience levels of ageing dampened mostly by the high levels of working-age immigration – despite anticipated reductions in migration rates. Qatar – with its high levels of migrant workers – is expected to see its dependency ratio increase only marginally, from 2.1 percent in 1980 to

3 Based on UNDESA Medium Variant projections (UNDESA 2017).

just 2.9 percent by 2025. As in GCCs such as Qatar, the United Arab Emirates (UAE) and Kuwait, the growth of old-age dependency ratios in Yemen and Somalia are slow, albeit for different reasons. Rates here are expected to fall instead, owing to the higher fertility and mortality rates still driving population growth rates. Despite the varying rates and trajectories of age-structural transitions under way across the region, all MENA countries are expected to undergo significant transformations from 2025, with those aged above sixty-four years representing the largest age group by 2050.

Growing populations of working age (fifteen to sixty-four), however, represent a larger age segment able to engage in economic activity, thereby earning, saving and potentially generating tax revenues to support dependent age groups such as children and those over sixty-five years of age. The social implications of such shifts are discussed in Section 2.2, below. They differentially effect rural and urban populations, as they do those with access to retirement-age social safety nets, and different sexes.

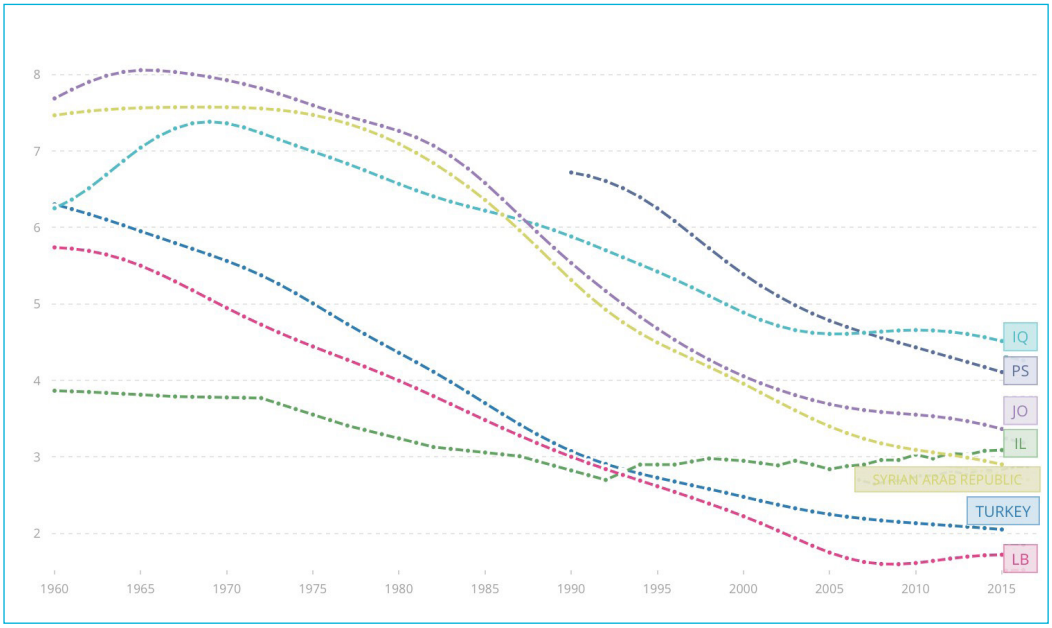
## 1.2 TRANSITION ANALYSIS

It is important to understand that the MENA region is undergoing highly significant population transitions. The dynamics of demographic transition under way across the region vary, in part owing to changing fertility, mortality and migration statistics – in turn all influenced by the range of social factors that are discussed in this section.

### 1.2.1 FERTILITY TRANSITIONS

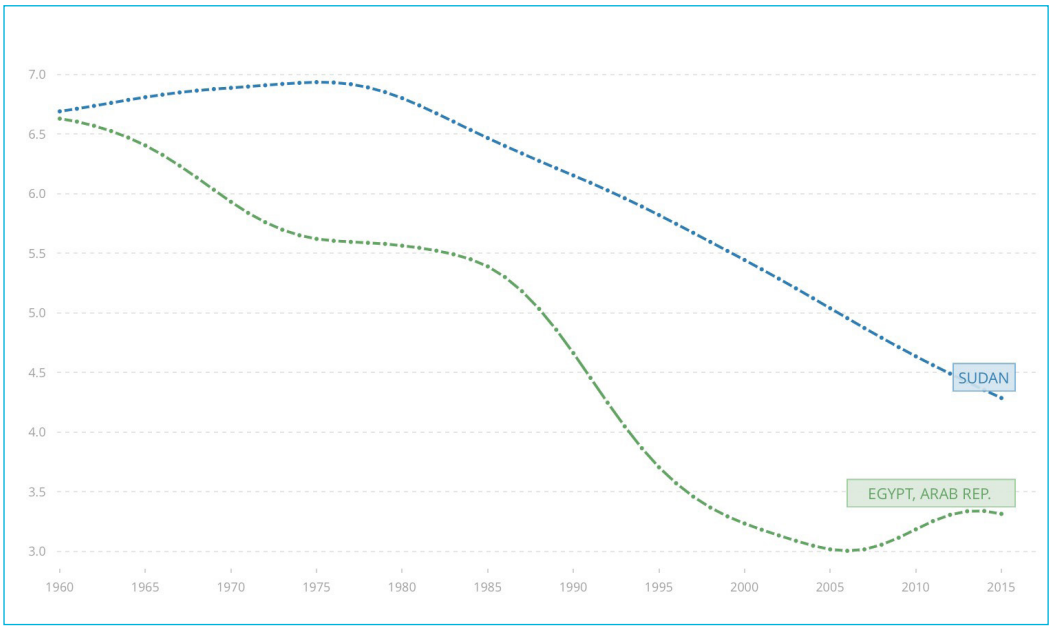
As mentioned previously, despite continued growth in absolute population size, the number of child births per fertile woman have in fact transitioned to a downward trend since the mid-twentieth century. Figures 8–11 display this downward trend as experienced across the different sub-regions of MENA countries. Iraq, Palestine, Sudan, Yemen and Mauritania still have high TFRs, relative to other MENA states. There are several social factors influencing fertility rates, to varying degrees across different parts of the region. Of these factors, access to education (particularly for women), contraception and urbanisation are considered to have played key roles in informing TFRs. Increased equal access to education for women correlates with declining fertility rates by increasingly delaying the age many women are married and thus shortening the number of childbearing years and total births (Rashad et al. 2005).

**Figure 8** | Total fertility rates, 1960–2015 – Mashreq sub-region



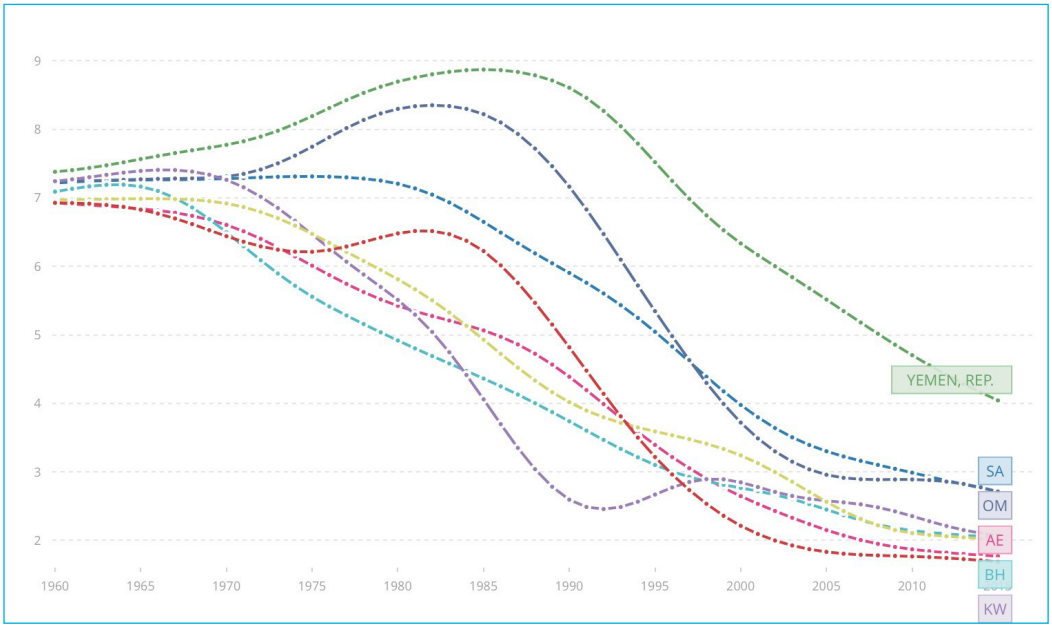

Source: World Bank (2017).

**Figure 9** | Total fertility rates, 1960–2015 – Egypt and Sudan sub-region



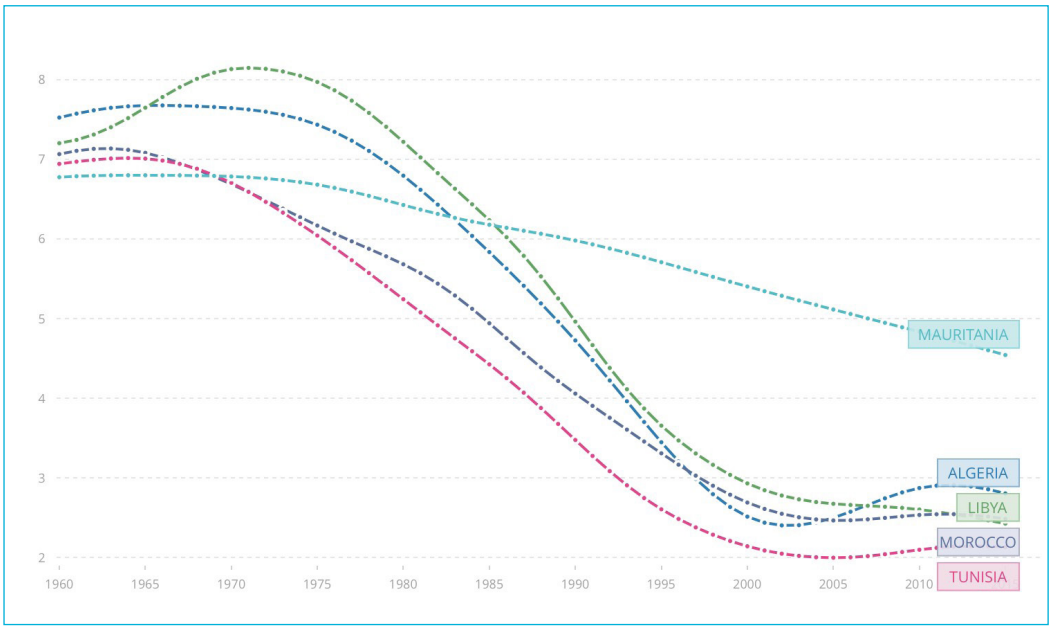

Source: World Bank (2017).

**Figure 10** | Total fertility rates, 1960–2015 – Gulf sub-region




Source: World Bank (2017).

**Figure 11** | Total fertility rates, 1960–2015 – Maghreb sub-region



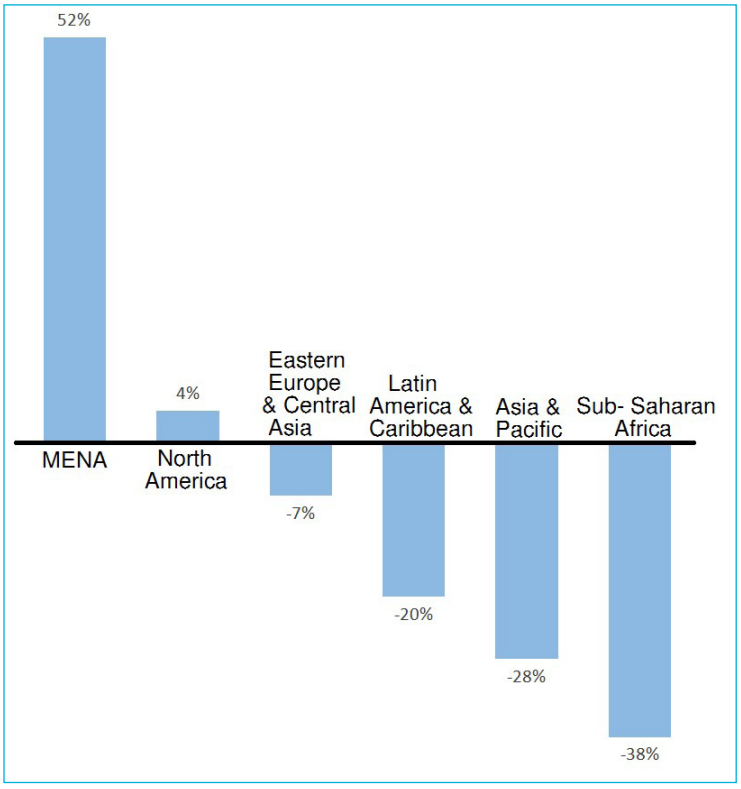

Source: World Bank (2017).

It has traditionally been understood that greater education and cultural awareness of issues surrounding reproductive health and contraception has been hindered across the region owing to a reluctance towards state intervention in family planning, and social taboos and values (Zohry 1997). The variegated success of local policymakers in attending to public concerns through community outreach and public discourse has affected the rate of demographic transition of MENA countries

differently. The example of Tunisia, for instance, which has shown a greater openness towards providing family planning services for unmarried couples, differs from the case of Iran and Egypt (Tsui 2001).

In addition to family planning campaigns, fertility rates have also been affected in countries in the region as a result of increased public awareness around reproductive health and infection rates of communicable diseases. In Iran and other Gulf states (Figure 12), the HIV/AIDS pandemic that has increasingly begun to affect communities across the region since 2001 has helped shift public receptiveness to reproductive health issues featuring in public policy (UNAIDS 2011).

**Figure 12** | Change in estimated annual number of new HIV infections by world region, 2001–2012




Source: UNAIDS (2013: 13).

Such transitions accompanied the increased success of international organisations in delivering effective support, training and family planning services across the region. With greater support and funding for female outreach workers, birth control and rural health clinics and education, rates of fertility have continued to slow across the core population centres of the region (Rashad et al. 2005, Loichinger et al. 2016).

## REGROWTH OF FERTILITY RATES

The regrowth of fertility rates across several MENA countries has been influenced by divergent factors. In Egypt, a strong commitment to the expansion of family planning services to rural areas and educational programmes around reproductive health led to a dramatic decline in TFRs, from five children per woman in 1982, to 3.5 in the 1990s, and further still to just over three by 2002

(Figure 9). Since 2005, however, fertility rates increased to more than 3.5 births per woman in 2016 (CIA 2016), attributable to the deterioration of national family planning efforts of the 1990s. In Israel, government has long supported population growth, not only through incentivizing inbound Jewish migration and Israeli emigrant repatriation, and offering state benefits to mothers, such as free education and child allowances, but also by heavily funding fertility treatment. Such support has been influenced by, amongst other things, debates around religious imperatives and concerns over high fertility rates among the local Arab population (Cohen and Scheer 2015). Iran and Turkey are also actively promoting pro-natal policies, after recognizing the future implications of dramatically declining TFRs for ageing populations and the shrinking labour market available to support them, although these policy efforts are yet to reflect in national TFRs. Rather than reflecting transitions in fertility, absolute population increases in Lebanon and Jordan are more a result of forced migration due to regional conflict. The TFRs of Yemen and Palestine have begun to decline much later than fertility transitions experienced across the rest of the region, at rates reflecting broader regional trends from 1950.

### 1.2.2 MIGRATION AND CONFLICT

Another important demographic transition experienced in the region relates to migration. As described above, migration contributes either positively or negatively to the old-age dependency ratios of countries. In the past ten years, the region's migrant population has more than doubled, and it has become host to the world's fastest growing population of forcibly displaced and international migrants (Connor 2016). Migration for economic imperatives and safe haven from regional conflicts or occupation have shifted the region's migrant communities 120 percent to a total of 54 million, or 13 percent of the total population (Connor 2016). The demographic dynamics of these emerging populations differ vastly from country to country, as do the accompanying implications. Where immigration has been heavily age and sex selective, gender and dependency ratios have been influenced accordingly. In Gulf states, the majority of local populations (some 88 percent in the UAE, 75 percent in Qatar and 74 percent in Kuwait) comprise mostly international migrant workers. Saudi Arabia attracts the highest number of international migrant workers in the region, some 33 percent. The largely male migrant workforce also distorts local gender ratios, labour market participation figures and national birth rate statistics.

Israel has taken in 6.5 percent of Western Asia's non-displaced migrants, receiving almost half a million people between 1990 and 1995. Smaller countries in the region also house sizeable migrant populations of forcibly displaced peoples and their descendants, such as Jordan (41 percent) and Lebanon (34 percent) (UNDESA 2015). As of 2015, Syrian and Iraqi migrants make up more than half of the Middle East's displaced migrants (UNDESA 2015). The potential longer-term implications of these conflicts and migration patterns on regional development and demographics are yet to be determined. However, declining oil prices and conflict-related economic downturns have influenced declining global remittance volumes and rising migrant worker unemployment rates (Kumar 2016). Relatedly, national statistics on internal migration are often measured according to outmigration from provinces of birth at registration. Such figures can obscure internal economic migration, where families remain in villages whilst breadwinners (often men) migrate to cities or industrial zones often for months at a time. For instance, rates of international economic migration in countries such as Egypt have declined considerably following the First Gulf War and later 9/11 (from 564,000 between 1975 and 1980, to just 68,000 between 2000 and 2005). Internal

movement of labour has also declined during this period, from 10 percent in 1980 to 6 percent in 2010 (Herrera and Badr 2012). Internal economic migration and increased urbanisation (discussed below) also have implications for older family members who remain in rural areas. Net economic emigration can reduce the size of and educational endowments of available local workforces. It can also provide opportunities to generate remittances and later knowledge transfers to support more economically marginal communities and dependents. Remittances in Somalia, for instance, reached 1.4 billion dollars in 2016, or some 23 percent of gross domestic product (GDP), whilst foreign direct investment (FDI), mostly by the Somali diaspora, reached 21 percent in the same year (IMF 2017). As populations age, the importance of countries to attract expatriates of working age and provide opportunities of gainful employment will become more pronounced. The ability to incorporate them into national economies may reduce the relative shrinking of labour supply and increased old-age dependency ratio brought about by declining fertility and mortality rates. As discussed in the following section, the migration of older people from rural to urban settings may also result in increased social marginalisation through the loss of rural social networks and families which offer support.

### 1.2.3 SOCIAL WELFARE AND INCLUSION

Adapting to shifting demographic dependencies requires more targeted social protection services that seek to actively support the more vulnerable elements of society – from unemployed youth, to migrant workers, retirees or greater female participation in labour markets. As TFRs peak and populations experience a demographic transition, emergent social issues will also transition. Over the course of the century, concerns are likely to shift from issues concerning the "youth bulge" and youth unemployment rates, to those concerning an ageing population and the need to invest in retirement. Similarly, experiences of inequality, investment priorities and recipients of state subsidies are also likely to shift considerably. Ageing populations are likely to increase the public and private financial burdens of increased social welfare costs and further exacerbate inequality. Financing retirement also has implications for national savings levels and funds for investment.

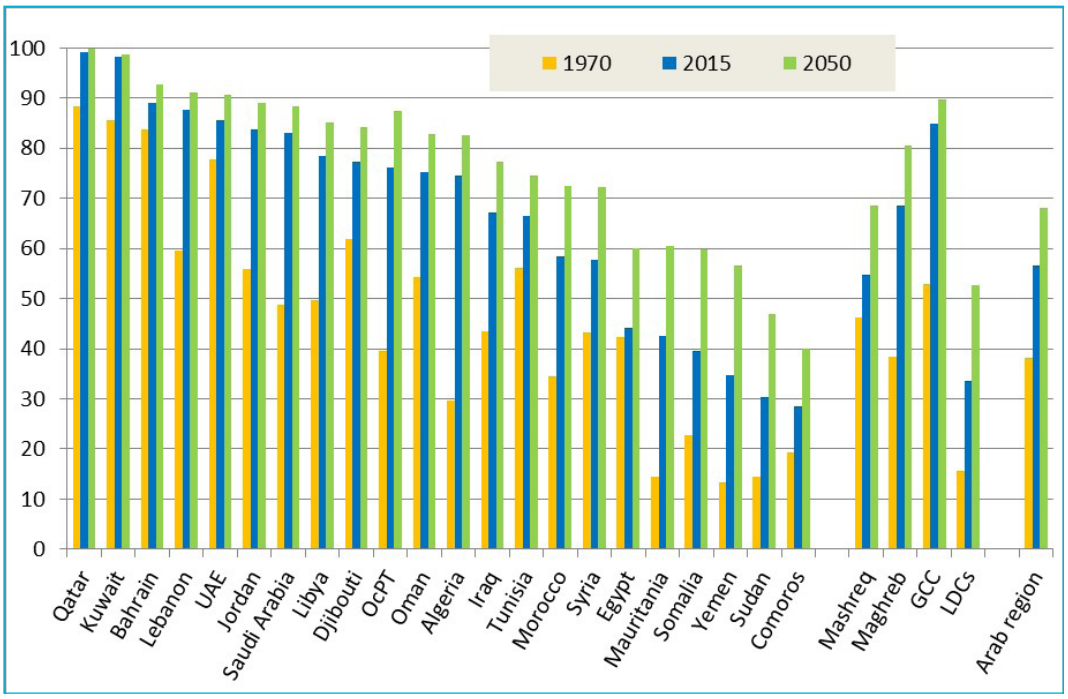
The healthcare concerns and costs affecting different age groups during age-structural transitions taking place across the region will also continue to evolve. Countries such as Yemen, Somalia, Iraq and Mauritania all have high percentages of their populations under the age of five. Concerns around nutrition in general, and specifically that of the early years, food security and education will be more pressing. With countries such as Egypt, Syria, Jordan, Lebanon and Tunisia, investing in early-age preventative healthcare will help reduce the costs associated with old-age-related illnesses. And for the rapidly ageing countries such as Morocco discussed above, the prevalence of diseases associated with old age such as diabetes, cancer, Parkinson's and heart disease are likely to increase dramatically across the next decade.

### 1.2.4 URBANISATION

Urbanisation is another factor contributing to declining childbirths per woman. Whereas higher numbers of children in rural settings can offer labour support for family farms, and represent fewer challenges in housing and childcare costs, in urbanised settings such economic implications appear to contribute to declining rates of urban fertility. Urbanisation continues to gain momentum across the region, with urban populations in the region as a whole surpassing rural occupants

since about 1990. Almost 90 percent of absolute population growth across the region will be generated from urban areas by 2050. When including net rural–urban migration, some 70 percent of the region's populations will be living in cities by 2050 (Figure 13). The process of urbanisation, however, will differ significantly across sub-regions. The Gulf sub-region already has very high levels of urbanisation – more than 80 percent in Kuwait and close to 100 percent in Qatar. *Mashreq* countries and the least developed countries (LDCs) of the MENA region such as Mauritania, Sudan and Yemen have much lower rates of urbanisation, although urban dwellers are still expected to increase faster than their rural population, and to represent the majority of the population by 2050. Urbanisation can also have implications for an ageing population, where joint family support structures are typically less cohesive when compared to those in rural regions, thus increasing the burden upon national social protection systems. Similarly, declining rural populations may influence agricultural import dependency ratios and related concerns about food sovereignty and food security.

**Figure 13** | Urban population projections (%) - Arab region




Source: UNDESA (2017).

## URBANISATION AND FOOD SECURITY

Owing to the already limited availability of arable land and water resources and daunting economic diversification issues, such population growth projections will likely continue to pose a significant challenge to countries in providing employment opportunities and food security. It is especially evident that the three major river basins needed for local and regional food production will see dramatic population growth. This is especially true for the Nile basin and the Euphrates basin. However, the Jordan basin will see even more dramatic changes given its size and natural endowments. Furthermore, while considerable scope for improvements in agricultural and water productivity exist across the region, population growth, the accompanying increases in urbanisation and demand for housing are resulting in urban encroachment.

Increasingly urbanised populations consume greater levels of animal protein, foods prepared outside the home, and higher levels of fats, salt and sugar. The accompanying decline in physical activity can often lead to a "mismatch between human biology and modern society" (Popkin et al. 2012) and an increased risk of obesity, micro-nutrient deficiencies and other non-communicable diseases – now increasingly common across many countries in the MENA region. The distinct patterns of food consumption among urban populations and a greater reliance on food markets rather than relatively declining rural production represents a growing challenge for regional governments and for the food system in general.[4] The region is already the largest global importer of basic foodstuffs, representing one third of total food imports. A growing reliance on imported food supplies to meet the needs of expanding populations will likely further exacerbate trade imbalances and vulnerability to world food price volatility and export restrictions. Such vulnerability is particularly pronounced among countries either with trade deficits, severe land and water limitations or limited means to increase agricultural productivity.

## CONCLUSIONS

Rising absolute population growth despite a decline in relative terms is impacting on many countries across the region. It places additional pressure on the infrastructure and spatial distribution of the region's inhabitants. The need for housing and increased pressure on urban infrastructure, hospitals, education systems and transportation links mean that the region will need considerable investment to contend with challenges and to develop opportunities. As urban populations increase, many governments in the region struggle under the burden of ensuring the basic needs of those expanding populations, including infrastructure and sanitation provisions, housing, educational and healthcare services, employment opportunities, and in combating inequality and poverty.

The general demographic trends discussed above are influenced by declining mortality and fertility rates, and patterns of migration. Other factors, such as rates of urbanisation and education, patterns of rural–urban migration and employment affect the rates and character of these demographic transitions. Large populations require adequate resources, the ability to coordinate economic opportunities and the development of efficient, functioning food, ecological and social security systems. In the absence of adequately functioning systems, securing increasingly scarce natural resources and controlling patterns of fertility and migration become imperatives of regional development.

Managing the sprawling population of the region is often understood as an imperative of security and regional stability, and, alongside it, regional and transnational patterns of conflict and migration. Relatedly, the specific demographic transitions under way represent opportunities for regional economic development – through the timely creation of employment opportunities for young people, of investment in public infrastructure and of preparing for ageing populations. These issues centring around the MENA economies will be explored in the next section.

4 The food system includes the provision of inputs, production, processing, storage, transportation, retail and consumption. Its viability and responsiveness to shifting imperatives and conditions has a key role to play in responding to growing regional trends of malnutrition, obesity and sustainability. See FAO (2013).

# 2. ECONOMIC FACTORS

## 2.1 REGIONAL OVERVIEW

Since population growth is dramatically changing the region, one of the most pressing challenges for internal and external policymakers is to address economic opportunities and risks. The economic challenges in the region have been described as full of "superlatives" because "its workforce has grown at the fastest annual rate in the world (2.7% in the past 10 years)" and youth unemployment is also the highest in the world standing "at around 25% of the population" (Dashti 2015).

Thanks to a century of exploiting hydrocarbons as its primary asset, the region has seen significant economic development. At the same time hydrocarbons have led to a "rentier state" economic model in large parts of the region. In this system, the economy relies mostly on external rents such as oil and gas revenues as opposed to a strong domestic productive sector. Another feature is that only a small number of the working population is needed to generate rents. Government plays the key role in distributing these external rents, allowing little room for a private sector to thrive (Beblawi and Luciani 1987). Rents derived from energy exports are used to subsidize food, energy and medical services to a varying degree across the region. The key rentier states are Saudi Arabia, Oman, United Arab Emirates, Kuwait, Iraq, Qatar, Bahrain, Libya and Algeria, because they possess the largest hydrocarbon endowment. However, even in countries without much in the way of resources such as Syria, Egypt or Lebanon, the effect of the rentier states in the GCC has been felt, owing to remittances. This model also impacts on the dynamism of economies, which are effectively run by the older generation since few people in the economy are needed to maintain this system (Al-Ghwell 2015). As a result of this system, youth inclusion in economic and political activity is low, and this is one of the most significant challenges in the contemporary MENA region (UNDP 2016).

This section introduces 1) a classification of the MENA countries according to their resources and labour factors; 2) current GDP trends; 3) unemployment trends with a specific emphasis on the young generation 4) public debt and expenditure; and 5) import and export data to provide an understanding of how the region is faring in the globalised economy. The economic analysis will then feed into a discussion on the chances of the MENA region in the global economy in the years to come.

### 2.1.1 CLASSIFICATION OF COUNTRIES

The MENA region cannot be easily classified in economic terms. This study uses and adapts the World Bank and Cammett et al.'s definition to categorize the region in four groups (World Bank 2012, Cammett et al. 2015): 1) Resource-poor and labour-abundant (RPLA); 2) Resource-poor and labour-poor (RPLP); 3) Resource-abundant and labour-abundant (RALA) and 4) Resource-abundant and labour-poor (RALP). The World Bank classification captures the economic diversity of the MENA region by distinguishing it in three groups (resource-poor/labour-abundant; resource-rich/labour-poor; and resource-abundant/labour-abundant). Since the MENARA project also includes Israel in its analysis, a fourth group (resource-poor/labour-poor) is required for the analysis.

**Figure 14** | Classification of MENA countries as of 2017

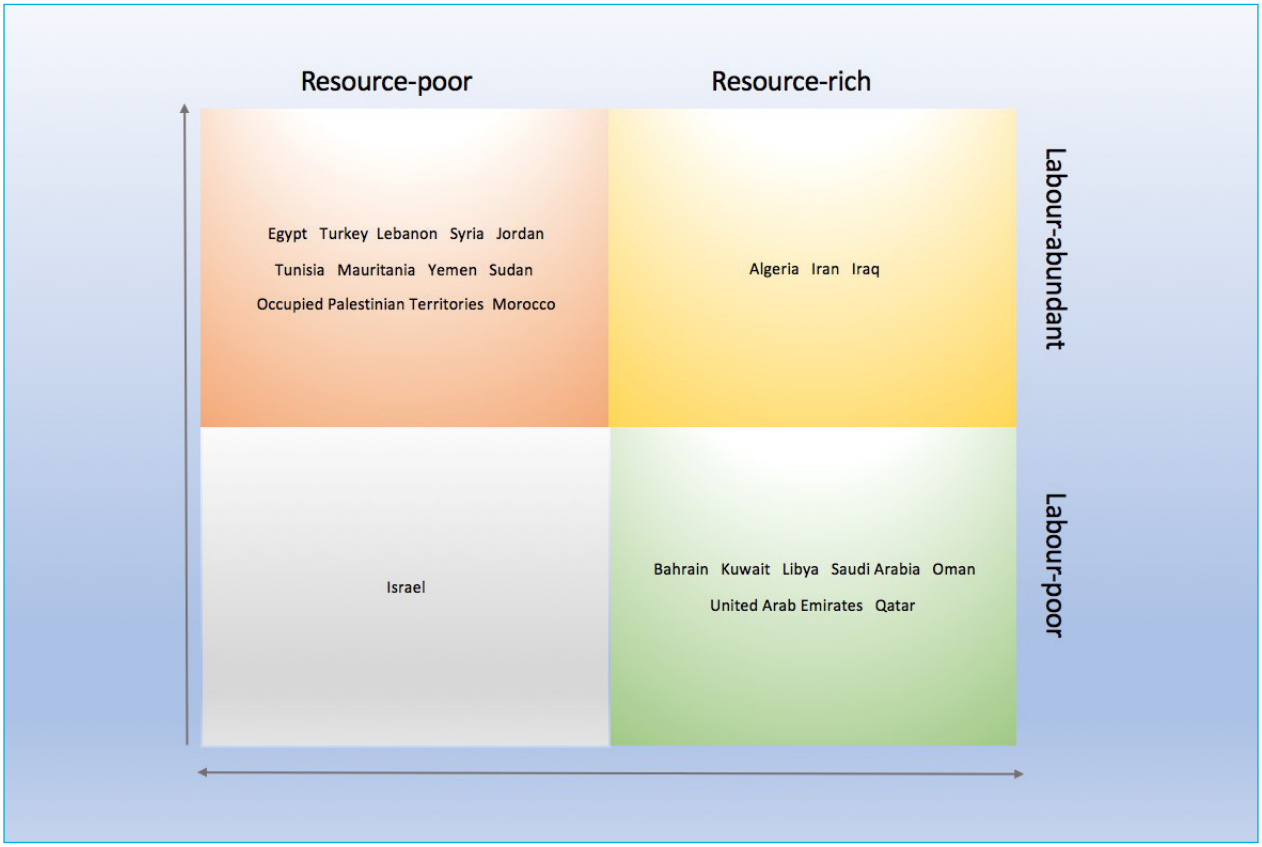



Figure 14 shows how the MENA countries fit into the World Bank grouping. 1) The RPLA countries include Tunisia, Egypt, Lebanon, Sudan, Morocco, Jordan, Turkey, Yemen, Syria, Occupied Palestinian Territories and Mauritania. These countries have little or no hydrocarbon endowments, yet a high availability of labour to varying degrees. 2) The RRLA countries are Iraq, Iran and Algeria. They have sizeable hydrocarbon endowments while at the same time having access to a readily available labour force. 3) The countries in the bottom-right box are rich in hydrocarbons but have been acting as labour importers in the region. These countries are primarily located in the GCC region. Libya is the only country from North Africa in this classification. Especially owing to its hydrocarbon resources, over the past sixty years the Gulf region has seen a development path different from that of other Arab countries. Countries in the GCC have had stronger economic development. They have also allowed remittances from the GCC to other countries, which has had a financially stabilizing effect in the MENA region. At the same time, their need for labour has caused a brain drain of talent from other Arab countries. 4) The only RPLP country is Israel, which imports labour despite a limited availability of natural resources. Yet, since it is characterise by high economic diversification and development, it holds a unique place in the MENA region (see Figure 14).

The classification of MENA countries into the boxes illustrated in Figure 14 has also changed over time. While Cammett et al. (2015) placed Yemen as a RALA economy until 2011, its natural resource endowments have peaked, with 440,000 barrels of oil production per day in 2001, but

since then steadily declining. Moreover, it has been affected by conflict since 2011, causing oil extraction to decrease significantly (Haykel 2013). Therefore, Yemen is placed here in the RPLA box. Syria has been affected by similar trends, including conflict. Although around two-thirds of Syria's oil production sites are now controlled by the Islamic State in Iraq and Syria (ISIS), the downward trend has been felt for more than fifteen years (Bulos 2015). Syria's oil production peaked in 2001 at 700,000 barrels per day, declining to 400,000 barrels per day in 2010 and to 50,000 barrels per day in 2014 (IEA 2017). It is also placed in the RPLA box. Despite its significant oil reserves, Libya has been classified as an RPLA country by Cammett et al. (2015) for the period after 2011, which has seen significant domestic turmoil. However, Libya has recently begun to produce 700,000 barrels per day again, suggesting there is a rebound of oil production to pre-2011 levels (El Wardany 2017). At the same time, the country's population of 7 million people suggests it is more labour-poor than labour-abundant. Morocco is the world's largest exporter of phosphates and has a whopping 75 percent of the world's phosphate reserves. Like other mining states such as Chile, Peru and South Africa, the mining sector accounts for about 6 percent of its GDP (Woertz 2014). While this is sizeable, it is not comparable to the much more dominating role of the oil sector in the resource-rich countries of the region, where it often hovers around 40 percent. For this reason, Morocco is classified as an RPLA country for the purpose of this study. The same is true for Turkey, which has substantial resources of fertile land and water by MENA standards and ranks among the ten largest agricultural economies of the world. Yet the share of the agricultural sector in its GDP and exports is far removed from the comparative ratios of oil and gas in the RRLP and RRLA countries of the region.

This classification is not static and may further change over time. For example, new natural resource discoveries may alter the economic landscape in the MENA region. This may especially affect the Eastern Mediterranean countries such as Egypt, Lebanon and Israel, which have discovered large gas reserves off their respective coasts (Ratner 2016). However, only Israel currently exploits its offshore natural gas endowments. It produced a small amount of 7.9 billion cubic metres of dry natural gas in 2014 mainly for the domestic economy (EIA 2016). Israel's Arab neighbours have not exploited these natural resource endowments yet; hence the study has classified Egypt and Lebanon as RPLA and Israel as RPLP.

At present, and for the purpose of analysing the current economic factors, the classification of the MENA region in the above-described classification is shown in Figure 14. This classification will be used for analysing GDP, unemployment, debt and trade in the following sections.

### 2.1.2 HISTORICAL AND CURRENT GDP IN THE MENA REGION

In terms of GDP, the picture in the MENA region is diverse. The region has some of the richest countries on a GDP per capita basis in the world. These countries are mostly located in the Persian Gulf region. Qatar has the highest GDP per capita in the world. Other high-income countries include Bahrain, United Arab Emirates, Oman, Saudi Arabia, Kuwait and Israel.[5] The MENA's lower

5 The report will use the World Bank Atlas method: low-income countries are those with 1,005 dollars GNI per capita or less in 2016; lower middle-income economies are those with a GNI per capita between 1,006 and 3,955 dollars; upper middle-income economies are those with a GNI per capita between 3,956 and 12,235 dollars; high-income economies are those with a GNI per capita of 12,236 dollars or more.

middle-income countries are Syria, Morocco, Mauritania, Egypt, Yemen, Palestine, Sudan, Tunisia and Jordan. Turkey, Lebanon, Algeria, Iran, Iraq and Libya are considered upper middle-income countries. Some of the poorest lower middle-income countries are also in the MENA region, such as Yemen, Mauritania and Sudan (see Figure 14). However, these figures are strongly influenced by local factors such as conflict and subnational inequality. Despite Morocco's very significant rural poverty, the GDP per capita still reaches upper average levels of lower middle-income countries. Sudan and Mauritania are in the average range of GDP per capita in sub-Saharan Africa. Yemen and Syria have seen a dramatic decline of their GDP to approximately 2,000 dollars per capita, making them part of the poorest countries in the region. The ongoing wars in Yemen and Syria are the foremost reasons for the decline in living standards in their economies.

The MENA countries' inequality rates are not higher than in the rest of the world (Alvaredo and Piketty 2014). However, data on top income shares in the MENA economies hardly exists, hence a full analysis of income inequality is next to impossible. However, and more strikingly, it can be said that the key economic feature of the MENA economies is the high degree of intraregional inequality. This, in turn, has had a significant impact on wealth accumulation across the region (Alvaredo and Piketty 2014). One remedy for intraregional income disparities has been the labour migration of skilled workers to the GCC. The high salaries paid in the GCC compared with the rest of the region have led to the GCC being immensely attractive for other MENA young professionals. For example, 1.4 million Egyptians are working in the GCC economies to provide essential services to the economies in engineering, business, education and medicine among others (Althani 2012). The resulting brain drain has long been criticised as having an adverse effect on economic development in the countries of origin of the talent that the GCC countries have been able to attract. Countries such as Lebanon, the Occupied Palestinian Territories, Egypt and Syria in particular have sent generations of young, skilled workers to the GCC, hampering their domestic economies because the best talent has left to go abroad (Althani 2012). Labour markets are key to understanding inequality in the MENA region. This introduces the analysis of labour markets, which is a notoriously acute problem in the Arab part of the MENA region.

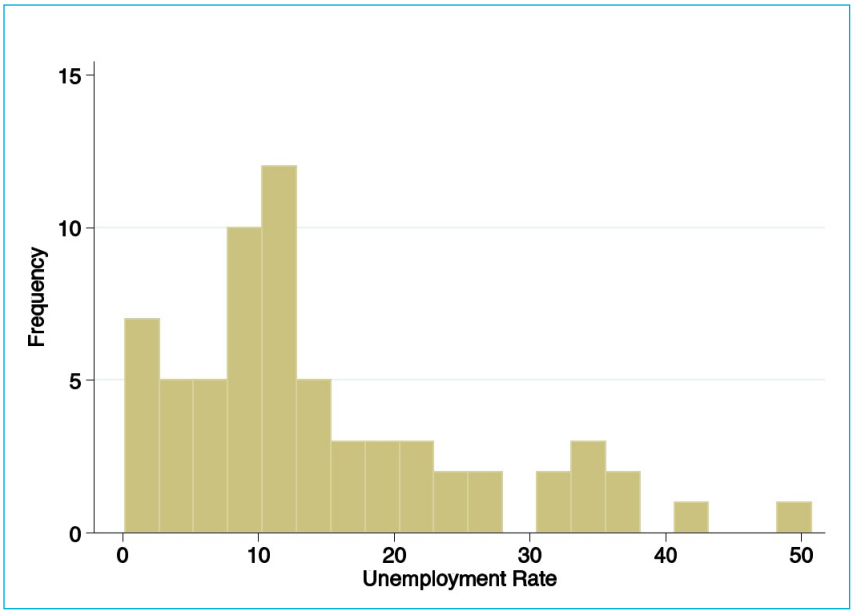
## 2.2 THE MENA LABOUR MARKET

The labour markets of the MENA region can be best defined by distinguishing those of Qatar, Kuwait, UAE and Bahrain on the one hand, and the rest of the MENA region on the other. While the GCC economies (excluding Oman and Saudi Arabia) are notable exceptions, with low unemployment of both overall population and the youth, the labour markets in all other countries have in common the fact that unemployment among young people is almost double that of the rest of the population. Arab labour markets in particular (except for the aforementioned) have several distinct characteristics: first, a growing gap between the formal and informal labour market; second, a high reliance on the public sector in the formal labour market for secure job creation, which has resulted in an oversised public sector; third, high youth unemployment; fourth weak private sectors; fifth, low and stagnant female labour force inclusion; and sixth, "a rapidly growing but highly distorted educational attainment" with an underrepresentation of Science, Technology, Engineering and Mathematics (STEM subjects) among graduates (Assaad 2014). Desirable jobs in the MENA region are those that provide protection and employment stability or high incomes. However, for job seekers to obtain such jobs does not reflect effort or merit through, for example,

education and experience, but instead it reflects circumstances over which job seekers have less or no control. These circumstances include gender, location, family connections and parents' education (Gatti et al. 2013). The resulting unemployment owing to these institutionalised inequalities has been identified as a "thorny issue" for the entire region (Kerr 2008, Lennie 2013).

The average unemployment rate for all age groups in MENA countries was at 14.5 percent in 2016 (ILO 2017). In terms of unemployment, the region is as diverse as it is in terms of GDP. First, unemployment differs among age groups. This unemployment rate across the different age groups provides a more insightful picture of unemployment trends. Figure 15 shows the distribution of the unemployment rate amongst all age groups. The International Labour Organisation uses fifteen years of age and above to identify the working age population, as this is the common age threshold used for this purpose in many countries. While average unemployment rate among above fifteen-year-olds is around 10.6 percent, the average youth unemployment rate is approximately 25 percent. In most MENA countries youth unemployment is much higher than adult unemployment (i.e. the unemployment rate amongst persons older than twenty-five). Most countries in the MENA region suffer from a lack of job creation and thus a lack of opportunities for the young population. Job creation has lagged behind the population growth over the last 30 years (see Figures 17 and 18). This is a worrying trend.

**Figure 15** | Distribution of unemployment rate in MENA - all ages



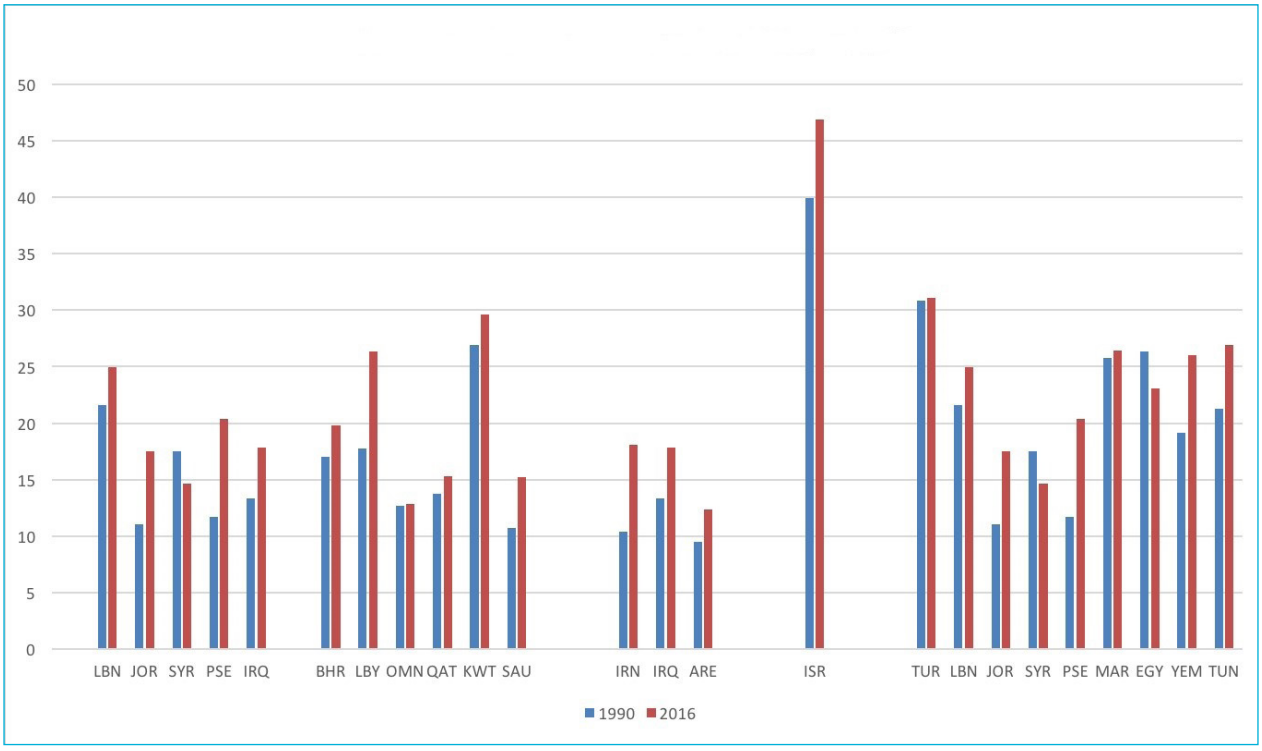

Source: World Bank (2017).

The average young unemployed person in the Arab countries of the MENA region is male and under twenty-five. A young Arab citizen usually has three options: 1) to wait for an opportunity in the local public sector, which has become less attractive owing to stagnating wages; 2) to emigrate to outside the region (mainly Europe and North America) or inside the region to GCC labour markets; or 3) to work in the informal sector, which provides little or no security and protection and often pays only dismal salaries. Option 1 often involves personal networks to obtain a job. At the same time, public sector jobs still provide the highest wages despite their stagnation, increasing the

wage bill of the public sector (OECD 2016b). Option 2 requires specific skills such as engineering or medicine to make young people attractive to Western employers. The GCC economies import labour for high-skilled private sector jobs, yet there is hardly any political integration in the economies as non-nationals have limited rights compared with nationals (WEF 2014). This means foreign employees have no protection that allows them to remain in GCC countries if they lose their employment. Option 3 is the most unprotected option because the informal sector has by nature very low protection. Therefore, and as Malik and Awadallah (2013: 296) point out, the public sector is "the main avenue for job creation". The employment reality is still almost entirely delegated to the public sector, which is unable to cope with the demographic pressures across the region (Malik and Awadallah 2013).

Female inclusion in the labour market is notoriously low in most countries. Only Israel has a relatively even workforce between men and women, with women representing 47 percent of labour in the economy. Turkey and Kuwait have a female workforce share of about 30 percent (see Figure 16). All other economies are well below 30 percent (see Figure 16). However, the trend has at the same time been towards more gradual involvement of women in the labour force. In particular, Palestine achieved a notable success in almost doubling the percentage of women in the labour force from 11.6 percent in 1990 to 20.3 percent in 2016. Only Egypt (from 26.3 percent to 23.1 percent) and Syria (from 17.5 percent to 14.7 percent) have seen a decline in female involvement in the labour market, yet these have specific national reasons. While Syria's labour market has been negatively affected by the ongoing war, Egyptian women are discriminated against through poor education opportunities, high rates of illiteracy (37 percent) and social and economic conditions that developed after the Egyptian Revolution in 2011 (Mounir 2015).

**Figure 16** | Female employment in the MENA region, 1990–2016



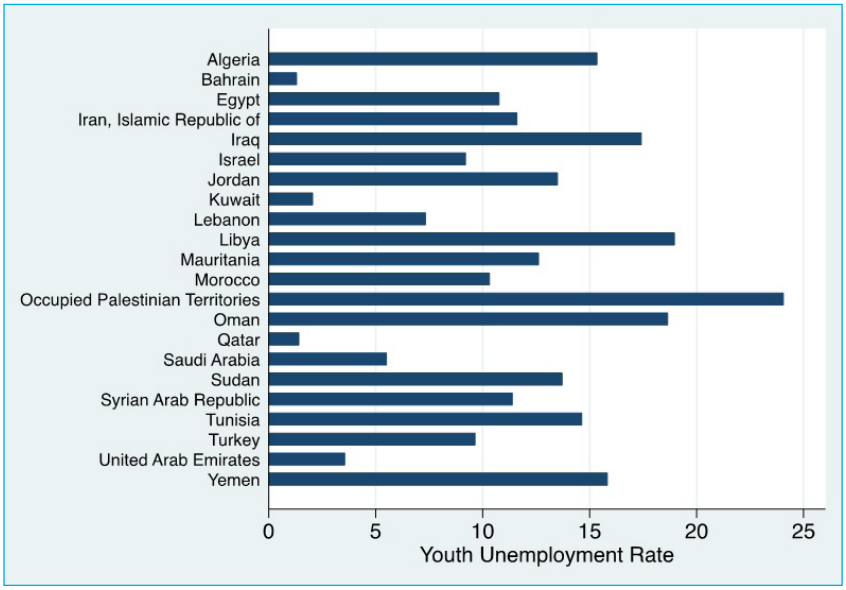

Source: World Bank (2017).

The low integration of women negatively affects economic development in the MENA region. Greater rates of female employment are affected by, amongst other factors, access to higher education and increased urbanisation, which have made labour force participation both more attractive to employers and manageable for working mothers. Their greater and more equitable inclusion in urban labour markets could mitigate the otherwise ageing population, allowing for greater levels of employment and resources for financing retirement. Increased participation in the labour market can help respond to shifting demographic patterns by compensating declining numbers of young people relative to the share of the population of retirement age. However, without meaningful transformations in the organisation and operation of national economies, growing female labour force participation will likely mean more people sharing more equitably an already inadequate supply of employment opportunities. Instead, ensuring both the immediate and longer-term durability, equitability and sustainability of regional economies will help increase women's share in the labour market, and parity in accessing employment opportunities, pay and treatment in the workplace. This will require the generation of new economic opportunities. Mobilizing large young populations and greater proportions of female and older-aged labour will also help capture the economic advantages of the "demographic dividend", as illustrated in Section 1 above (El-Khoury 2016).

The final challenge of the MENA labour market is the role of education. With the notable exception of Israel, Lebanon and Turkey, the MENA region has generally low-quality educational systems. At the same time, a skills gap exists between what is taught in schools and universities and what is required by the labour market (Hoel 2014). For example, 63 percent of Saudi university students complete degrees that are in relatively low demand by the private sector such as agricultural sciences, education services, and humanities and the arts (Hildebrandt et al. 2014). Despite these challenges, the MENA region has also experienced positive news. Governments have increased their spending on education to 5.3 percent of GDP on average. Girls in schools outperform their male counterparts in subjects such as maths. At the same time, net enrolment rates have increased to almost 92 percent across the region. However, the region needs greater investment in STEM subjects to prepare students for jobs required by a changing private sector.

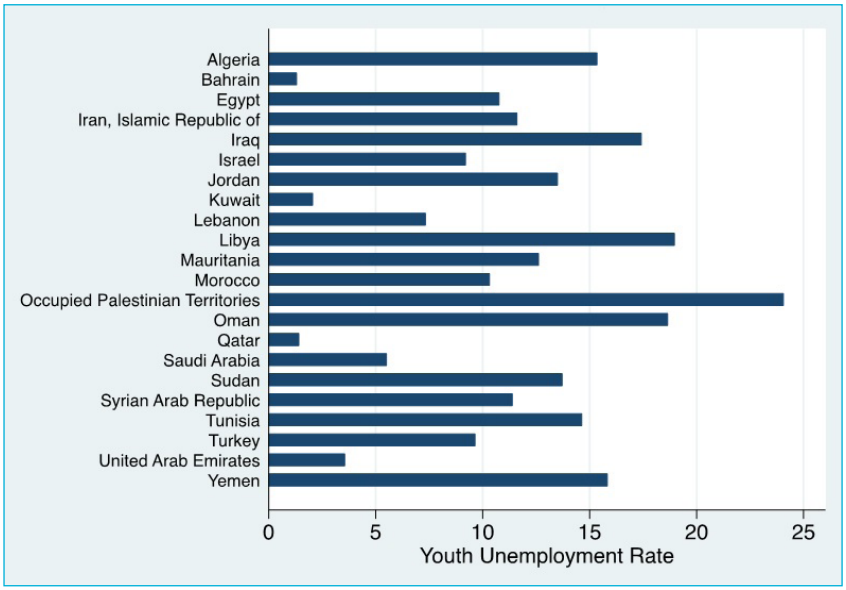
The resulting picture of the labour markets has been described as an "authoritarian bargain social contract" between regimes and societies to politically appease populations in the region (Assaad 2014). Such a contract only works if the public sector has the financial means to invest in job creation. Section 2.3 will shed light on the role of public finances.

**Figure 17** | Youth unemployment in the MENA region, 2016




Source: World Bank (2017).

**Figure 17** | Unemployment in the MENA region – all age groups, 2016




Source: World Bank (2017).

## 2.3 GOVERNMENT DEBT IN MENA COUNTRIES

Given the reliance on the public sector to provide jobs in the region, the wage bill is having significant impacts on public finances and therefore public debt. This section illustrates the financial health of the public sector to show that the current social contract is unsustainable in the MENA region. There has been increased interest in public debt as a macroeconomic indicator, particularly after private debt was bailed out by states in the West after the financial crisis of 2008/9 (Neaime and

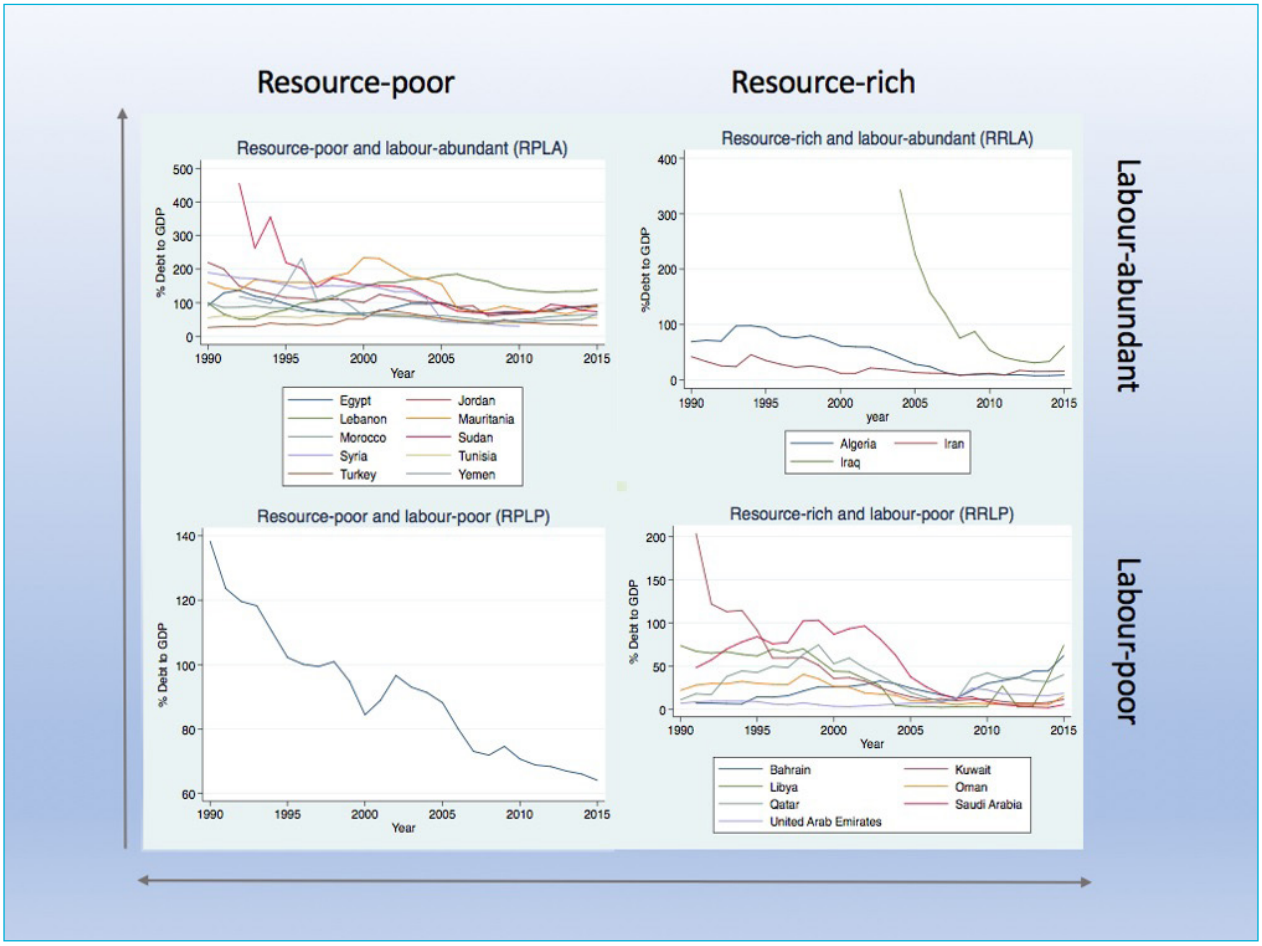
Gaysset 2017).[6] Government debt differs in the four categories of countries. RRLA and RPLP countries have few to no significant problems with government debt, since this is low or in the range of the 60 percent threshold of GDP/debt ratio that is widely seen as important for long-term financial stability and has been made one of three stability criteria of the Eurozone's Maastricht. All RRLA and RPLP countries have seen a decline in public debt since the 1990s, with a relatively healthy outlook for the coming years (see Figures 19 and 20).

**Figure 19** | Government debt in the MENA region according to classification


Source: World Bank (2017).

6 The IMF Historical Public Debt Database (HPDD) is the most comprehensive debt data currently available containing public debt to GDP ratios for almost all the IMF member countries for a long period of time. In this section, HPDD is used to analyse the trends observed in debt to ratio figures of the MENA countries for the longest period for which data is available for most of these countries.

**Figure 20** | Development of government debt according to classification




Source: World Bank (2017).

In the RRLP countries, public debt correlates with oil revenues and political events. It was higher during the 1990s when oil prices were low, then it was significantly reduced to levels below 40 percent GDP/debt ratio in the 2000s when oil prices spiked. Only Bahrain had a debt ratio of 62 percent in 2015, owing to its vulnerable economic position with limited savings, high borrowing and low cash reserves (Mottaghi 2016: 24). At the same time, it is expected to see further increases of external debt to 83 percent in 2016. The government has begun to address fiscal health by curbing spending, cutting subsidies and by increasing taxes (Mottaghi 2016: 24). The one-sided reliance on oil revenues makes the region's economies vulnerable to external shocks and renewed spikes in public indebtedness. Kuwait, Saudi Arabia and Libya borrowed more extensively when faced with political crises such as the Gulf War in 1991 (ESCWA 2005) and the Libyan regime change in 2011. However, their debt levels have returned to levels below 40 percent, but are set to rise as the decline in oil prices since 2014 has caused large budget deficits (see Figures 19 and 20).

The most indebted countries are in the RPLA grouping. No data is available for Syria (see Figure 19). Despite decreases since the 1990s, government debt in the RPLA countries is well beyond the 60 percent threshold, with the notable exception of Tunisia where it is at 53 percent (see Figure 19). Lebanon tops the list. It has the fourth-highest debt of all countries in the world at 139 percent of

GDP (after Japan, Zimbabwe and Italy). It stands out as the most indebted MENA region economy (Credit Libanais 2016). Lebanon's public debt was spurred by post-civil war reconstruction measures, which were largely financed by external and internal borrowing (Credit Libanais 2016). Jordanian, Egyptian and Mauritanian GDP/debt ratios are just below 100 percent of GDP, causing similar concerns about the financial health of public finances (Sowell 2016).

In sum, the RPLA countries are the most vulnerable. These are not only challenged by the need for job creation to tackle youth unemployment, but their social contract is also severely challenged by high government debt. There have been frequent calls for measures to tackle escalating public debt in RPLA countries to avoid government bankruptcy. Proposed measures include tax reform, privatisation of publicly owned companies, reduction of fuel and food subsidies, public–private partnerships in infrastructure investment and more fiscal discipline of governments (Credit Libanais 2016). However, the International Monetary Fund (IMF) has conceded that governments need to be supported to deal with the refugee crisis in the region (Rother et al. 2016). A "Greek solution" involving austerity measures is unlikely to take place in the coming years in order to avoid defaults, as long as RPLA economies such as Lebanon, Jordan and to lesser extent Egypt play such an instrumental role in mitigating the refugee crisis in the MENA region. At present, the IMF has called for grants and conditional loans for countries exposed to high refugee inflows (Rother et al. 2016). However, a debt haircut together with long-term measures to promote private sector jobs growth will be inevitable sooner or later. This brings us to the final section on trade and globalisation. It will shed light on how the MENA region has utilised (or not) opportunities through international trade and the global economy, and how oil dependence figures in its long-term development prospects.

## 2.4 TRADE IN MENA COUNTRIES

The previous sections have provided an analysis of the challenges in the MENA region. Population momentum, youth unemployment and escalating public debt have been identified as key economic bottlenecks for future development in the region. In particular, the RPLA economies will be the most challenged. In this final section, economic opportunities are explored through an analysis of the components of trade in MENA countries, in order to explain how the MENA region is faring in the globalised economy.[7] What are the current trade patterns? What are the key import and export sectors? Which sectors could be expanded to allow a greater trade share within the global economy for both economic growth and job creation in the private sector of the MENA economies? We will first look at the current import levels to provide a picture of how the MENA region is dependent on the world market.

MENA economies are regarded as not sufficiently open for globalisation (Behar and Freund 2011). They punch below their weight in terms of reaping the opportunities in global imports and exports

7 In order to provide a consistent comparison of products traded in different countries the Standard International Trade Classification (SITC) will be used, which is a statistical classification of the commodities entering external trade. The current version of SITC (Revision 3) divides traded products into ten groups. The list of SITC groups coded from [0] to [9] is provided in Table 1. In the following subsections, the trends and components of import and export data are discussed in each of the MENA countries based on subgroups identified in Section 1.1. Moreover, an overall understanding of the components of trade in MENA countries based on their level of development will be provided by looking at the average share of product groups of total income in each subgroup of countries.

owing to ongoing conflicts and protectionist policies pursued by MENA governments. In terms of FDI into the MENA region, it fell to an all-time low of 1 percent of GDP in 2015. The ongoing conflicts in Syria and Yemen and the political transition after the Arab uprisings in Egypt and Tunisia has caused a 50 percent drop in FDI, having already declined by 50 percent since 2009 (OECD 2016a).

### 2.4.1 EXPORT AND IMPORT TRENDS

The region's share of global exports fell from 2.3 percent in 1990 to 1.8 percent in 2008. The key export commodities are still oil and gas. It comes as no surprise that the RRLA and RRLP countries are leading this trend (see Figures 21 and 22). However, mineral fuels exports in the economies of Egypt, Yemen and Sudan in the RPLA grouping have also played a highly significant role. Turkey and Israel on the other hand, as RPLA and RPLP countries respectively, have the most diversified economies, which is reflected in their OECD status. At the same time, MENA economies are key global importers of machinery, manufactured goods and food. While food imports can be explained owing to the lack of readily available land and water resources in the region, the significance of machinery and manufactured goods shows the lack of economic diversification and heavy reliance on the assembly of intermediate goods in the case of Turkey. Too much reliance on oil and too little emphasis on economies with broader economic foundations, such as strong industrial production and service industries, amplify the youth unemployment challenge.

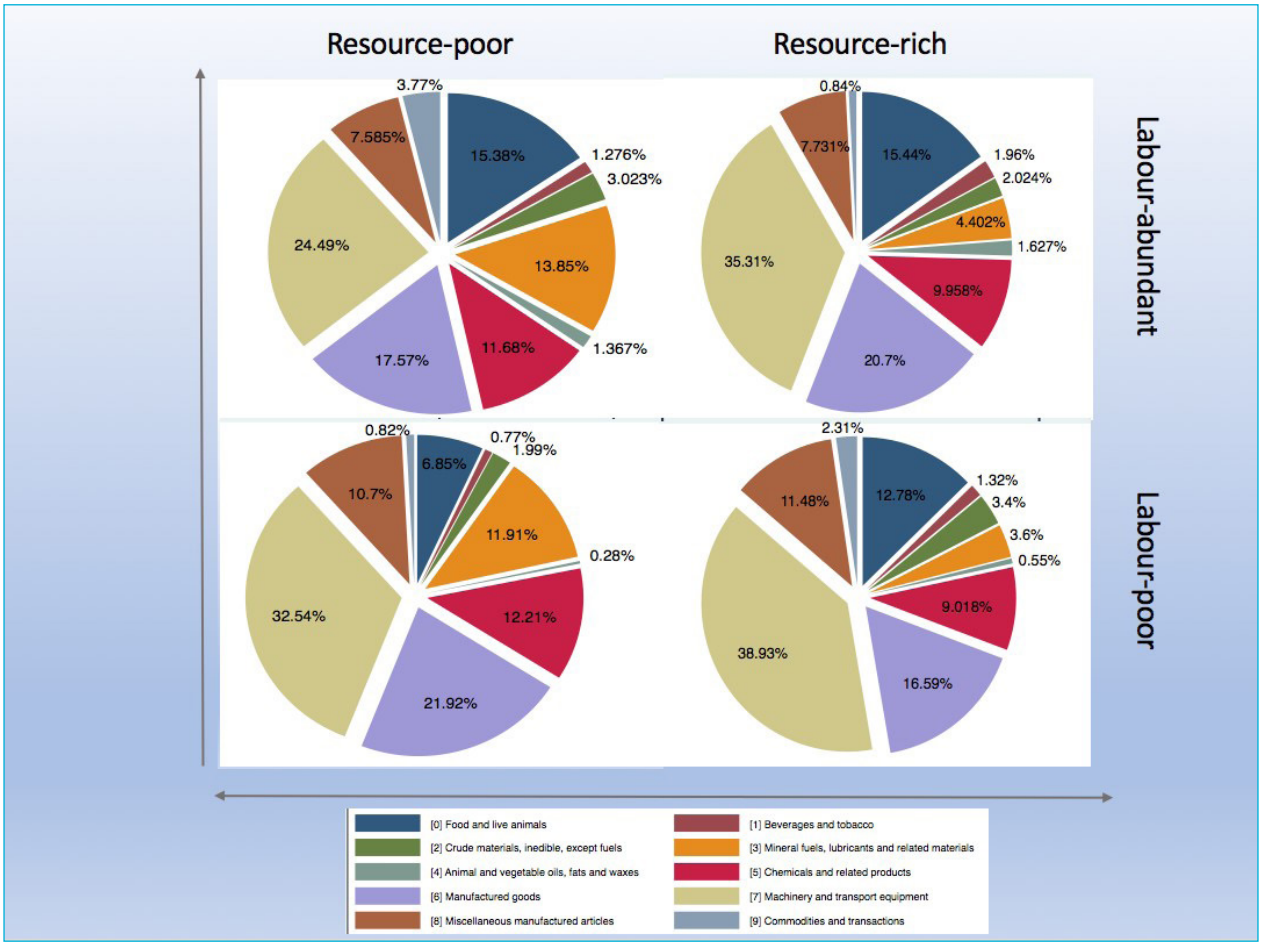
MENA countries lag behind globally in terms of trade integration and investment flows. Henry and Springborg (2010) have pointed out that the MENA region has fallen behind other world regions in the age of globalisation, especially emerging markets in Asia, but also in Latin America (see also Noland and Pack 2007). This assessment chimes with the resource curse literature. Economies of resource abundant countries not only tend to focus on non-tradables as a result of Dutch disease and a real effective appreciation of the exchange rate; they also develop political structures that are hampering economic development, such as resource capture by elites, corruption, rent seeking and educational shortcomings (Auty 1990, Gelb 1988, Ross 2012).

An analysis of trade pattern indeed reveals a heavy concentration of oil and gas exports of many countries in the MENA, while imports are dominated by manufactured goods. Yet there are some striking differences and also evidence of diversification. Gulf countries such as Saudi Arabia, the UAE and Qatar have built up thriving heavy industries in petrochemicals and aluminium (Luciani 2012). Dubai has pioneered diversification into trade, logistics, services and tourism and has inspired copycat projects in other Gulf countries, but also beyond in such unlikely places as the Kurdistan region of Iraq and Morocco. Morocco has the largest global phosphate reserves (Woertz 2014). Like the Gulf countries in the case of petrochemicals, it has moved further up the value chain by investing in fertilizer production and other chemical industries. There is considerable light manufacturing in Morocco, Tunisia, Egypt and above all Turkey, ranging from car manufacturing and car supplies to textiles and food processing.

**Table 1** | SITC products groups and codes

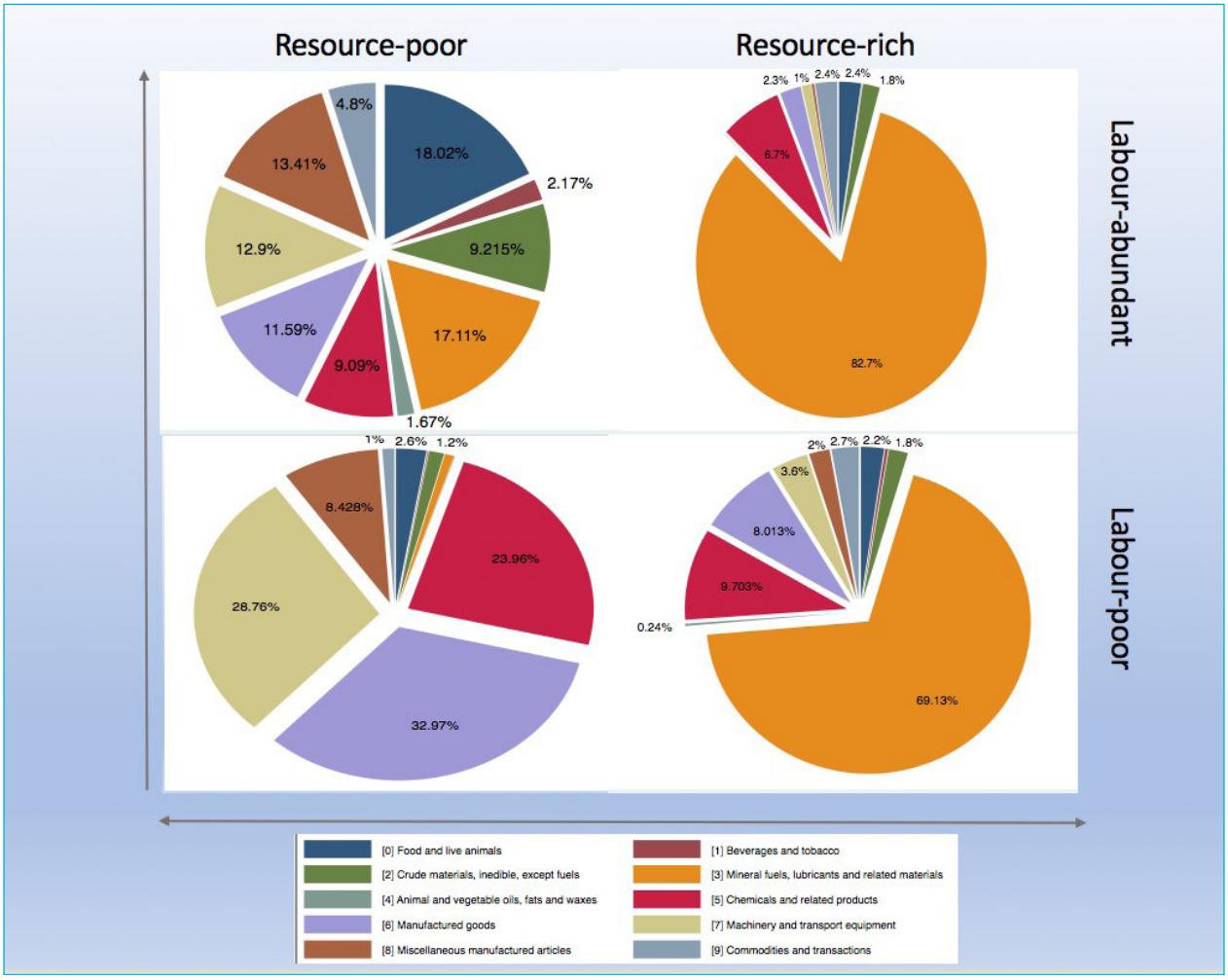
| Code | Product group |
|---|---|
| [0] | Food and live animals |
| [1] | Beverages and tobacco |
| [2] | Crude materials, inedible, except fuels |
| [3] | Mineral fuels, lubricants and related materials |
| [4] | Animal and vegetable oils, fats and waxes |
| [5] | Chemicals and related products |
| [6] | Manufactured goods |
| [7] | Machinery and transport equipment |
| [8] | Miscellaneous manufactured articles |
| [9] | Commodities and transactions |

**Figure 21** | Import trends according to economic classification




Source: World Bank (2017).

**Figure 22** | Export trends according to economic classification




Source: World Bank (2017).

## CONCLUSIONS AND WAYS FORWARD

The MENA region is undergoing a significant demographic transformation. It will overtake Europe in terms of population in 2020, making it a very fast-growing region in close geographical proximity to Europe. The key challenges of population growth are economic in nature. High and chronic levels of unemployment have hit the young population in the MENA region hardest. With the exception of some GCC economies such as Qatar, UAE, Bahrain and Kuwait, youth unemployment stands at alarming rates. The key reasons for this are low economic diversification and a continuous reliance on the public sector to create secure employment. However, this economic model becomes increasingly unsustainable owing to high government debt especially in the RPLA countries.

Something has to change. If the MENA region wants to create secure and better livelihoods for its people, it needs to rethink its economic model. One key issue will be to ensure that the growing but also ageing populations will be educated and skilled in the coming years and decades. For

example, life-long learning of both men and women will provide a key opportunity for reskilling the population.

This picture of demographic and economic change is challenging. However, it is also an opportunity: by 2100 the MENA region will host more people and therefore more consumers than China. Creating opportunities from what is too often seen as a liability, for example absolute population growth, is a task where the EU can become an active and interested partner. We should not forget that the MENA region is the closest neighbouring region and market for Europe. Getting MENA right could lead to long-term prosperity for both Europe and the MENA region.

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## Annex 1 | Sex ratio of total population (males per 100), MENA countries , 1950-2100

| | Estimates | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **1950** | **1955** | **1960** | **1965** | **1970** | **1975** | **1980** | **1985** | **1990** | **1995** | **2000** | **2005** | **2010** | **2015** |
| Algeria | 104 | 102 | 101 | 101 | 101 | 101 | 102 | 102 | 103 | 103 | 103 | 102 | 102 | 102 |
| Egypt | 102 | 102 | 103 | 103 | 103 | 102 | 102 | 101 | 101 | 101 | 101 | 102 | 102 | 102 |
| Libya | 107 | 105 | 105 | 106 | 107 | 108 | 110 | 114 | 112 | 110 | 108 | 107 | 104 | 102 |
| Morocco | 98.5 | 104 | 107 | 108 | 110 | 107 | 108 | 106 | 105 | 104 | 104 | 105 | 104 | 104 |
| Sudan | 99.8 | 99.7 | 99.8 | 99.9 | 100 | 100 | 100 | 101 | 101 | 101 | 101 | 101 | 99.5 | 99.8 |
| Tunisia | 98.7 | 99 | 99.4 | 101 | 101 | 101 | 101 | 101 | 101 | 102 | 101 | 99.2 | 98.4 | 97.7 |
| Mauritania | 95.8 | 97.1 | 98.1 | 98.8 | 99.1 | 99.2 | 99.3 | 99.3 | 99.4 | 99.3 | 99.9 | 100 | 101 | 101 |
| Iran | 104 | 105 | 105 | 106 | 106 | 106 | 106 | 104 | 104 | 103 | 103 | 104 | 102 | 101 |
| Bahrain | 116 | 114 | 115 | 121 | 118 | 127 | 141 | 133 | 136 | 136 | 135 | 151 | 166 | 161 |
| Iraq | 99.5 | 100 | 101 | 103 | 104 | 104 | 104 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |
| Israel | 106 | 103 | 103 | 102 | 102 | 101 | 99.7 | 99.9 | 99.6 | 97.6 | 97.2 | 97.4 | 97.6 | 98.4 |
| Jordan | 108 | 109 | 110 | 109 | 108 | 107 | 109 | 111 | 110 | 110 | 108 | 107 | 104 | 103 |
| Kuwait | 148 | 159 | 180 | 160 | 129 | 119 | 134 | 130 | 132 | 139 | 141 | 144 | 137 | 135 |
| Lebanon | 101 | 101 | 101 | 102 | 102 | 102 | 98.3 | 97.8 | 97.3 | 98.3 | 98.5 | 103 | 104 | 101 |
| Oman | 103 | 100 | 98.1 | 96.6 | 96.6 | 102 | 111 | 118 | 126 | 146 | 128 | 130 | 152 | 184 |
| Qatar | 103 | 119 | 130 | 156 | 176 | 198 | 170 | 202 | 203 | 193 | 188 | 208 | 314 | 307 |
| Saudi Arabia | 103 | 102 | 101 | 102 | 104 | 108 | 116 | 122 | 127 | 125 | 120 | 126 | 128 | 131 |
| Palestine | 108 | 106 | 104 | 103 | 102 | 102 | 102 | 102 | 103 | 103 | 103 | 103 | 103 | 103 |
| Syria | 109 | 106 | 105 | 103 | 103 | 102 | 102 | 102 | 102 | 102 | 102 | 104 | 102 | 102 |
| Turkey | 101 | 100 | 99.4 | 98.9 | 98.7 | 98.7 | 98.4 | 97.8 | 97.6 | 97.3 | 97 | 96.9 | 96.7 | 96.8 |
| UAE | 103 | 101 | 100 | 142 | 173 | 227 | 229 | 186 | 191 | 198 | 208 | 236 | 292 | 272 |
| Yemen | 102 | 101 | 100 | 99.4 | 97.2 | 94.8 | 95.8 | 97 | 98.2 | 103 | 102 | 102 | 102 | 102 |

| | Projections (medium fertility variant) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **2020** | **2025** | **2030** | **2035** | **2040** | **2045** | **2050** | **2055** | **2060** | **2065** | **2070** | **2075** | **2080** | **2085** | **2090** | **2095** | **2100** |
| Algeria | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 103 | 103 | 103 | 103 | 103 | 103 |
| Egypt | 102 | 102 | 102 | 102 | 102 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 102 |
| Libya | 102 | 101 | 100 | 99.8 | 99.1 | 98.4 | 97.8 | 97.2 | 96.8 | 96.6 | 96.7 | 97 | 97.4 | 97.8 | 98.2 | 98.6 | 99.1 |
| Morocco | 104 | 104 | 103 | 103 | 102 | 102 | 102 | 101 | 101 | 101 | 101 | 101 | 102 | 102 | 102 | 102 | 102 |
| Sudan | 100 | 100 | 100 | 100 | 100 | 100 | 99.9 | 99.8 | 99.6 | 99.4 | 99.1 | 98.9 | 98.6 | 98.3 | 98.1 | 97.9 | 97.7 |
| Tunisia | 97.7 | 97.8 | 97.8 | 97.7 | 97.8 | 97.9 | 98.2 | 98.7 | 99.2 | 99.9 | 101 | 101 | 102 | 102 | 102 | 103 | 103 |
| Mauritania | 102 | 102 | 102 | 102 | 102 | 102 | 101 | 101 | 101 | 101 | 100 | 99.9 | 99.6 | 99.2 | 98.8 | 98.5 | 98.1 |
| Iran | 101 | 101 | 101 | 100 | 100 | 100 | 99.9 | 99.8 | 99.9 | 100 | 101 | 101 | 102 | 102 | 103 | 103 | 103 |
| Bahrain | 180 | 179 | 175 | 170 | 166 | 164 | 161 | 159 | 157 | 155 | 154 | 152 | 151 | 149 | 147 | 145 | 141 |
| Iraq | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 | 102 |
| Israel | 99.1 | 99.7 | 100 | 101 | 101 | 102 | 102 | 102 | 102 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| Jordan | 103 | 103 | 104 | 104 | 104 | 103 | 103 | 103 | 103 | 103 | 102 | 103 | 103 | 103 | 103 | 103 | 103 |
| Kuwait | 135 | 133 | 131 | 129 | 127 | 125 | 123 | 122 | 121 | 120 | 120 | 119 | 119 | 118 | 118 | 117 | 117 |
| Lebanon | 101 | 102 | 102 | 102 | 101 | 101 | 100 | 99.4 | 98.8 | 98.4 | 98.4 | 98.6 | 99.1 | 99.8 | 101 | 101 | 102 |
| Oman | 199 | 193 | 188 | 182 | 176 | 171 | 166 | 162 | 158 | 154 | 150 | 146 | 142 | 138 | 134 | 130 | 127 |
| Qatar | 293 | 279 | 266 | 256 | 246 | 236 | 228 | 220 | 214 | 208 | 202 | 198 | 193 | 188 | 183 | 177 | 172 |
| Saudi Arabia | 135 | 133 | 131 | 129 | 126 | 123 | 121 | 119 | 117 | 116 | 114 | 114 | 113 | 112 | 111 | 110 | 110 |
| Palestine | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 103 | 102 | 102 | 102 | 102 | 102 | 103 | 103 | 103 | 103 |
| Syria | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 100 | 100 | 100 | 99.8 | 99.5 | 99.2 | 98.9 |
| Turkey | 97.3 | 97 | 96.8 | 96.8 | 96.9 | 97 | 97.2 | 97.4 | 97.6 | 97.7 | 97.9 | 98 | 98.1 | 98.1 | 98.1 | 98.1 | 98.2 |
| UAE | 250 | 233 | 219 | 208 | 198 | 190 | 183 | 177 | 172 | 167 | 164 | 160 | 157 | 154 | 150 | 147 | 143 |
| Yemen | 102 | 102 | 102 | 102 | 101 | 101 | 101 | 100 | 99.6 | 99.1 | 98.5 | 98 | 97.5 | 97.1 | 96.6 | 96.3 | 96 |

Source: UNDESA (2017).

## Annex 2 | Age structural transition of MENA countries, 1950-2100

| | Estimates | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1950 | | | 1980 | | | 2000 | | | 2015 | | |
| **Country** | **0-24** | **25-64** | **65+** | **0-24** | **25-64** | **65+** | **0-24** | **25-64** | **65+** | **0-24** | **25-64** | **65+** |
| Algeria | 60 | 36 | 3.5 | 67 | 30 | 3.4 | 57 | 39 | 4.3 | 45 | 49 | 5.9 |
| Egypt | 58 | 39 | 3 | 60 | 36 | 4.5 | 57 | 38 | 4.9 | 51 | 44 | 5.1 |
| Libya | 57 | 38 | 5.2 | 65 | 32 | 2.8 | 56 | 40 | 3.8 | 46 | 50 | 4.3 |
| Morocco | 62 | 35 | 2.9 | 65 | 32 | 3.3 | 54 | 40 | 5.3 | 45 | 49 | 6.4 |
| Sudan | 62 | 34 | 3.4 | 66 | 31 | 2.9 | 64 | 33 | 3.1 | 62 | 35 | 3.5 |
| Tunisia | 58 | 38 | 4.5 | 63 | 34 | 3.9 | 50 | 43 | 6.7 | 39 | 53 | 7.6 |
| Mauritania | 64 | 35 | 1.4 | 65 | 32 | 2.9 | 63 | 34 | 3.2 | 60 | 37 | 3.1 |
| Iran | 56 | 39 | 5.3 | 63 | 34 | 3 | 59 | 37 | 4.2 | 40 | 55 | 5 |
| Bahrain | 62 | 36 | 2.9 | 57 | 41 | 2.1 | 47 | 51 | 2.5 | 34 | 64 | 2.3 |
| Iraq | 55 | 42 | 2.8 | 65 | 31 | 4.1 | 64 | 33 | 3.5 | 60 | 37 | 3.1 |
| Israel | 49 | 47 | 3.9 | 50 | 41 | 8.7 | 45 | 45 | 10 | 43 | 46 | 11 |
| Jordan | 63 | 32 | 4.8 | 69 | 28 | 3.2 | 61 | 36 | 3.1 | 55 | 41 | 3.8 |
| Kuwait | 58 | 39 | 2.9 | 58 | 40 | 1.6 | 45 | 54 | 1.6 | 32 | 66 | 2.1 |
| Lebanon | 53 | 39 | 7.3 | 60 | 35 | 5.4 | 48 | 45 | 7.1 | 44 | 48 | 8.1 |
| Oman | 61 | 36 | 3 | 63 | 35 | 2.7 | 59 | 39 | 2.4 | 37 | 61 | 2.3 |
| Qatar | 61 | 36 | 3.4 | 54 | 45 | 1.6 | 40 | 59 | 1.7 | 28 | 71 | 1.1 |
| Saudi Arabia | 60 | 36 | 3.3 | 61 | 36 | 3 | 56 | 41 | 3 | 42 | 56 | 3.1 |
| Palestine | 63 | 32 | 4.8 | 69 | 29 | 2.3 | 67 | 30 | 2.3 | 62 | 35 | 3 |
| Syria | 59 | 37 | 4.5 | 69 | 28 | 3 | 63 | 33 | 3.3 | 58 | 38 | 4 |
| Turkey | 60 | 37 | 3 | 59 | 36 | 4.7 | 50 | 44 | 6.1 | 42 | 50 | 7.8 |
| UAE | 61 | 36 | 3.4 | 46 | 53 | 1.4 | 42 | 57 | 1.1 | 24 | 75 | 1 |
| Yemen | 61 | 35 | 3.9 | 68 | 30 | 2.8 | 69 | 28 | 2.8 | 63 | 35 | 2.9 |

| | Projections | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2050 | | | 2080 | | | 2100 | | |
| **Country** | **0-24** | **25-64** | **65+** | **0-24** | **25-64** | **65+** | **0-24** | **25-64** | **65+** |
| Algeria | 33 | 51 | 17 | 27 | 48 | 25 | 26 | 45 | 29 |
| Egypt | 41 | 49 | 11 | 33 | 50 | 17 | 29 | 49 | 22 |
| Libya | 31 | 53 | 17 | 27 | 50 | 24 | 26 | 47 | 27 |
| Morocco | 31 | 51 | 18 | 26 | 47 | 27 | 24 | 44 | 32 |
| Sudan | 50 | 45 | 5.6 | 41 | 49 | 10 | 37 | 50 | 13 |
| Tunisia | 29 | 51 | 20 | 26 | 48 | 26 | 25 | 45 | 30 |
| Mauritania | 50 | 45 | 5.7 | 42 | 49 | 9.1 | 38 | 50 | 12 |
| Iran | 24 | 53 | 23 | 23 | 45 | 33 | 23 | 44 | 33 |
| Bahrain | 24 | 63 | 13 | 21 | 51 | 28 | 21 | 48 | 31 |
| Iraq | 50 | 43 | 6.2 | 42 | 48 | 10 | 37 | 49 | 14 |
| Israel | 36 | 47 | 17 | 30 | 47 | 23 | 27 | 45 | 27 |
| Jordan | 39 | 50 | 11 | 30 | 51 | 19 | 27 | 48 | 25 |
| Kuwait | 29 | 56 | 16 | 27 | 53 | 20 | 26 | 51 | 23 |
| Lebanon | 25 | 51 | 23 | 23 | 44 | 34 | 23 | 42 | 35 |
| Oman | 25 | 61 | 14 | 22 | 48 | 30 | 22 | 45 | 33 |
| Qatar | 21 | 66 | 13 | 20 | 55 | 25 | 21 | 52 | 28 |
| Saudi Arabia | 29 | 55 | 17 | 25 | 51 | 24 | 24 | 47 | 29 |
| Palestine | 46 | 47 | 7.1 | 35 | 50 | 15 | 31 | 49 | 21 |
| Syria | 37 | 52 | 12 | 28 | 50 | 23 | 25 | 47 | 28 |
| Turkey | 29 | 51 | 21 | 24 | 46 | 30 | 24 | 44 | 33 |
| UAE | 21 | 65 | 14 | 21 | 55 | 24 | 22 | 52 | 26 |
| Yemen | 43 | 51 | 6 | 31 | 55 | 14 | 27 | 53 | 20 |

Source: UNDESA (2017).

**Annex 3** | Old age dependency ratio (ratio aged 65+ per 100 population 15-64), MENA countries, 1950-2100

| | Estimates | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **1950** | **1955** | **1960** | **1965** | **1970** | **1975** | **1980** | **1985** | **1990** | **1995** | **2000** | **2005** | **2010** | **2015** |
| Algeria | 6.3 | 6.2 | 6.2 | 7.3 | 7.1 | 7.2 | 6.8 | 6.6 | 6.3 | 6.4 | 7.1 | 7.5 | 8.1 | 9 |
| Egypt | 5.2 | 6.2 | 7.2 | 7.6 | 7.9 | 8.1 | 8.1 | 8.2 | 8.3 | 8.5 | 8.4 | 7.9 | 7.6 | 8.2 |
| Libya | 9.3 | 8.2 | 7.1 | 6.5 | 6 | 5.8 | 5.6 | 5.4 | 5.6 | 5.8 | 6 | 6.1 | 6.2 | 6.4 |
| Morocco | 5.1 | 4.8 | 5 | 5.3 | 5.6 | 5.8 | 5.8 | 5.6 | 5.8 | 6 | 6.3 | 6.3 | 6.4 | 6.7 |
| Sudan | 6.3 | 6.3 | 6.2 | 6 | 5.9 | 5.9 | 5.9 | 5.8 | 5.7 | 5.7 | 5.8 | 5.8 | 6.1 | 6.3 |
| Tunisia | 8 | 7.2 | 7.1 | 7 | 6.8 | 7 | 7.2 | 7.9 | 8.4 | 9.2 | 11 | 11 | 11 | 11 |
| Mauritania | 2.6 | 3.1 | 3.6 | 4.2 | 4.8 | 5.2 | 5.5 | 5.8 | 6 | 6 | 5.9 | 5.7 | 5.6 | 5.5 |
| Iran | 9 | 8.4 | 7.5 | 6.8 | 6.3 | 5.9 | 5.6 | 5.7 | 6.5 | 7 | 6.9 | 7.1 | 6.9 | 7.1 |
| Bahrain | 5.2 | 5.2 | 5.4 | 3.5 | 4.7 | 4.1 | 3.3 | 4.1 | 3.4 | 3.6 | 3.6 | 3.1 | 2.7 | 3 |
| Iraq | 4.7 | 4.6 | 5.6 | 6.9 | 7.8 | 8.4 | 8.3 | 8.1 | 7.6 | 6.9 | 6.5 | 6.2 | 6 | 5.5 |
| Israel | 6.1 | 7 | 7.9 | 9.4 | 11 | 13 | 15 | 15 | 15 | 16 | 16 | 16 | 17 | 18 |
| Jordan | 9.7 | 8.9 | 8.2 | 7.3 | 6.4 | 6.1 | 6.7 | 7.2 | 6.3 | 5.2 | 5.3 | 5.7 | 6.2 | 6.2 |
| Kuwait | 4.8 | 4.4 | 3.1 | 2.8 | 3.4 | 3.3 | 2.8 | 2.2 | 2.1 | 2 | 2.2 | 3 | 2.7 | 2.7 |
| Lebanon | 12 | 12 | 11 | 10 | 9.5 | 8.9 | 9.7 | 8.9 | 9.9 | 10 | 11 | 12 | 12 | 12 |
| Oman | 5.5 | 5.5 | 5.6 | 6 | 6.3 | 6 | 5.2 | 4.7 | 4.4 | 3.5 | 4 | 4 | 3.8 | 3.1 |
| Qatar | 6.3 | 5.6 | 5.3 | 4.1 | 3.2 | 3.3 | 2.4 | 1.8 | 1.8 | 1.9 | 2.3 | 1.6 | 1.2 | 1.3 |
| Saudi Arabia | 6.1 | 6.5 | 6.8 | 6.8 | 6.6 | 6.2 | 5.6 | 4.7 | 5.1 | 5.3 | 5.1 | 4.7 | 4.4 | 4.3 |
| Palestine | 9.7 | 8.8 | 8.1 | 6.9 | 6 | 5.4 | 4.7 | 4.4 | 4.3 | 4.3 | 4.6 | 4.8 | 5 | 5.2 |
| Syria | 7.9 | 8.1 | 8.1 | 7.6 | 6.9 | 6.4 | 6.2 | 6 | 6.1 | 6 | 6 | 5.9 | 5.8 | 7 |
| Turkey | 5.2 | 5.7 | 5.8 | 6.9 | 7.3 | 8.1 | 8.5 | 7.7 | 7.7 | 8.4 | 9.6 | 10 | 11 | 12 |
| UAE | 6.3 | 6.5 | 6.6 | 3.9 | 2.3 | 2.1 | 2 | 1.8 | 1.8 | 1.5 | 1.5 | 1.1 | 0.9 | 1.2 |
| Yemen | 7.3 | 6.9 | 6.3 | 5.9 | 5.8 | 6 | 5.9 | 5.7 | 5.4 | 6.5 | 5.8 | 5.3 | 4.9 | 5.1 |

| | Projections (medium fertility variant) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **2020** | **2025** | **2030** | **2035** | **2040** | **2045** | **2050** | **2055** | **2060** | **2065** | **2070** | **2075** | **2080** | **2085** | **2090** | **2095** | **2100** |
| Algeria | 11 | 12 | 14 | 16 | 19 | 22 | 27 | 31 | 34 | 35 | 34 | 37 | 42 | 46 | 49 | 51 | 52 |
| Egypt | 8.7 | 9.5 | 10 | 11 | 12 | 14 | 17 | 19 | 20 | 20 | 21 | 23 | 26 | 29 | 31 | 33 | 35 |
| Libya | 6.8 | 7.5 | 9.1 | 12 | 17 | 21 | 26 | 29 | 31 | 32 | 33 | 36 | 39 | 42 | 44 | 45 | 46 |
| Morocco | 8.2 | 11 | 13 | 15 | 17 | 20 | 23 | 26 | 29 | 32 | 34 | 36 | 39 | 42 | 45 | 47 | 49 |
| Sudan | 6.5 | 6.7 | 7.1 | 7.5 | 7.9 | 8.3 | 8.8 | 9.4 | 10 | 12 | 13 | 14 | 15 | 17 | 18 | 19 | 21 |
| Tunisia | 13 | 16 | 19 | 22 | 24 | 27 | 32 | 36 | 39 | 40 | 40 | 41 | 45 | 48 | 51 | 52 | 53 |
| Mauritania | 5.6 | 6 | 6.5 | 7 | 7.7 | 8.4 | 9.1 | 9.8 | 11 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Iran | 8.9 | 11 | 14 | 17 | 20 | 26 | 37 | 48 | 54 | 54 | 54 | 56 | 61 | 64 | 65 | 64 | 62 |
| Bahrain | 3.4 | 5.3 | 7.3 | 9.8 | 13 | 15 | 18 | 20 | 23 | 28 | 35 | 41 | 47 | 52 | 54 | 54 | 55 |
| Iraq | 5.9 | 5.8 | 6 | 7 | 8.1 | 9.1 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 18 | 19 | 21 | 23 |
| Israel | 21 | 22 | 23 | 24 | 25 | 27 | 28 | 30 | 30 | 32 | 33 | 35 | 39 | 41 | 44 | 46 | 48 |
| Jordan | 6.4 | 7 | 8.3 | 10 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 31 | 34 | 37 | 39 | 42 |
| Kuwait | 4 | 6.4 | 9 | 13 | 18 | 21 | 23 | 24 | 24 | 26 | 27 | 29 | 31 | 34 | 36 | 37 | 38 |
| Lebanon | 13 | 16 | 21 | 25 | 27 | 31 | 37 | 45 | 55 | 63 | 66 | 65 | 63 | 62 | 64 | 67 | 69 |
| Oman | 3.3 | 4.3 | 5.8 | 7.7 | 11 | 14 | 19 | 26 | 33 | 38 | 42 | 46 | 52 | 57 | 60 | 60 | 59 |
| Qatar | 2.1 | 3.4 | 5.6 | 8.9 | 12 | 14 | 17 | 20 | 25 | 30 | 34 | 37 | 40 | 42 | 44 | 45 | 47 |
| Saudi Arabia | 5.2 | 6.8 | 9.2 | 12 | 17 | 21 | 25 | 29 | 33 | 34 | 35 | 37 | 40 | 44 | 47 | 49 | 50 |
| Palestine | 5.4 | 5.8 | 6.6 | 7.5 | 8.5 | 9.7 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 26 | 29 | 31 | 33 |
| Syria | 8 | 8.4 | 9.6 | 11 | 13 | 15 | 17 | 20 | 22 | 25 | 29 | 34 | 38 | 41 | 43 | 46 | 49 |
| Turkey | 13 | 15 | 18 | 21 | 25 | 29 | 33 | 37 | 40 | 44 | 47 | 50 | 53 | 56 | 58 | 60 | 61 |
| UAE | 1.6 | 2.9 | 5.3 | 8.2 | 12 | 16 | 19 | 21 | 24 | 27 | 31 | 35 | 38 | 40 | 41 | 42 | 43 |
| Yemen | 5.2 | 5.3 | 5.4 | 5.6 | 6 | 7.1 | 8.7 | 11 | 13 | 15 | 17 | 19 | 21 | 24 | 26 | 29 | 32 |

Source: UNDESA (2017).

**Middle East and North Africa Regional Architecture: Mapping geopolitical shifts, regional order and domestic transformations (MENARA)** is a research project that aims to shed light on domestic dynamics and bottom-up perspectives in the Middle East and North Africa amid increasingly volatile and uncertain times.

**MENARA** maps the driving variables and forces behind these dynamics and poses a single all-encompassing research question: Will the geopolitical future of the region be marked by either centrifugal or centripetal dynamics or a combination of both? In answering this question, the project is articulated around three levels of analysis (domestic, regional and global) and outlines future scenarios for 2025 and 2050. Its final objective is to provide EU Member States policy makers with valuable insights.

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