# Trésor-economics 

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## Demographic challenges in the Maghreb countries

- Following a decline in infant mortality, Maghreb countries entered a demographic transition phase in the 1940s and 1950s. A second phase began in the 1960s with birth planning and the subsequent fall in the fertility rate. The age pyramids of Algeria, Morocco and Tunisia have undergone rapid changes. This situation should be beneficial for them until 2050. The proportion of the population of working age will increase before ageing, as in developed countries.
- The massive increase in the working age population could boost growth significantly in the Maghreb countries, provided they find a path to more inclusive and sustainable growth.
- At present, the labour market is characterised by a high level of youth unemployment and a low integration level for women. The integration of young people into the labour market is hampered by an economic development model that fails to create enough jobs, coupled with training ill-suited to market needs and the lack of decent jobs in the formal sector. Although migration outflows ease the pressure on the labour market and improve current account balances, structural reforms such as those implemented by certain Asian countries in the 1970s and even in Europe would allow the Maghreb countries to better benefit from their demographic dividend.
- Another medium-term challenge for Maghreb countries is the ageing of their populations by 2050, which will differ across countries. Addressing the impact of population ageing involves ensuring the financial sustainability of social protection schemes, considering reforms of how they are financed and run, in a context where intergenerational solidarity continues to play an important role.

Fertility rates (1950 to 2015)


Source: United Nations, World Population Prospects 2017.

## 1. The Maghreb countries have completed the second phase of their demographic transition, which began in the 1970s

The Maghreb countries, which began their demographic transition in the 1940s and 1950s, underwent a rapid change in their age pyramids, at a pace that varied depending on the country. The natural growth rate for the three Maghreb countries has dropped by half in nearly three decades due to the combined effects of a decline in mortality, a decrease in the birth rate (number of births compared to the population) and a decrease in the fertility rate (number of children per woman). This last phenomenon is primarily linked to societal changes: an increase in the marriage age for women, urbanisation, progress in education, widespread enrolment of women in school, and progress in contraceptive practices and family planning.

In Tunisia, the second phase of the demographic transition began in the 1960s and was completed in the early 2000s. The Tunisian population grew sharply over the last sixty years, from 4.5 million inhabitants in 1966 to almost 11 million in 2014, the date of the last general population census. Socio-economic changes (economic growth, improved quality of life) have led to a decline in the mortality rate. In addition, societal changes fostered by the Habib Bourguiba regime led to a sharp drop in the fertility rate as from the end of the 1960s. The rate fell from seven children per woman in 1969 to 2.1 children in the early 2000 s, but at present it is rising quickly.

In Morocco, the 2014 population and housing census in 2014 confirmed the demographic shift. Morocco's
population has tripled over the last 50 years, reaching 33.8 million inhabitants in 2014. Nevertheless, the average annual growth rate, reflecting the birth planning that began in the late 1970s, has declined significantly ( 2.8 children per woman) and this trend seems to be continuing. This decline in fertility is also a reflection of long-term advances in healthcare and basic infrastructure. Life expectancy at birth now exceeds 76 years, although it is still too early to speak of an ageing population.

In Algeria, the initial phase of the demographic transition began in the early 1980s. The Algerian population has multiplied fourfold since 1966: according to the National Office of Statistics it had reached 40.4 million inhabitants on 1 January 2016. The decline in the natural growth rate is the result of the combined effect of lower infant mortality and progress in and better access to healthcare, and a sharp drop in fertility rates (an average of 3.1 children per woman in 2015 compared to eight in 1970). In addition to societal changes, the decline in fertility is due to measures to space births out, which were introduced starting in 1974. However, in contrast to Tunisia and Morocco, the trend seems to have reversed since the 2000s, with a resurgence in fertility rates partly due to a catching-up after the "Black Decade". Algeria could thus experience a new wave of strong growth in its youthful population - the so-called "youth bulge" phenomenon.

## Box 1: Demographic transition

The term "demographic transition" refers to the shift from a traditional situation of high and more or less balanced fertility and mortality rates to a situation of low but balanced birth and mortality rates (National Institute for Demographic Studies, INED). It takes place in two phases. First, the mortality rate falls while the birth rate remains high. Then, in a second phase, the birth rate falls sharply and leads to a slowing of the natural growth rate. The demographic transition model applies to all countries with a time lag. The transition period opens a "window of opportunity", otherwise known as the demographic dividend. It translates into an increase in the population of young people and an increase in the working-age population and follows the first phase of the demographic transition, where the mortality rate drops while the fertility rate remains high. The dependency ratio (working-age population/dependent children and the elderly) is then favourable. The Maghreb countries should benefit from this window of demographic opportunity until 2050 before their populations begin to age.
Recent work on the economic impact of demographics (David E. Bloom, Youssef Courbage) highlights the significance for growth of changes in the population's age pyramid. The demographic transition leads to an increase in the working age population and a more favourable dependency ratio. Expenditure normally earmarked for dependent persons can be reallocated to savings and productive investment, thus contributing to higher productivity and growth. David Bloom's work at Harvard University shows that a third of the strong growth in Asian countries between 1965 and 1990 ("Asian miracle") is related to changes in the age structure of the population.
The recent experience of Asian countries (Singapore, Taiwan and South Korea) that have been able to take advantage of their demographic transition to achieve emerging economy status could help identify ways to derive the maximum benefit from the demographic dividend. These countries have been able to benefit from the demographic transition by investing in human capital (education, health) and carrying out reforms to create a sufficient number of jobs and increase labour productivity. Even though it is not a simple matter to transpose the Asian countries' experience onto the Maghreb countries, in an economic and international context that is clearly different, the challenge for the Maghreb countries is to invest now in the younger generations, in health and education, to ensure that those entering the labour market will be able to drive growth, as the Asian dragons did in the 1970s and 1980s.

Chart 1: Demographic transition in the Maghreb countries


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## 2. An increasing share of the working-age population is left out of the labour market

2.1 Strong growth in the working-age population translates in high youth unemployment and weak integration of women

The three Maghreb countries are faced with the challenges of integrating a rapidly growing, young and increasingly female workforce into the labour market. Moreover, widespread access to higher education also requires job opportunities for young graduates. The growing mismatch between the number of graduates and the quality and prospects of available jobs heightens labour market imbalances.

In Algeria, the unemployment rate (an estimated 11.7\% for 2017), is expected to reach $13.2 \%$ in 2018, due to slowing economic activity ( $0.8 \%$ growth expected in 2018), while the youth unemployment rate stands at $26 \%$ ( $18 \%$ for college graduates). The unemployment rate remains higher for women ( $20 \%$ ) than for men ( $8.1 \%$ ).

In Morocco, the unemployment rate has fallen for three years in a row, but remains high ( $9.4 \%$ in 2016). A total of 1.2 million out of almost 12 million people in the workforce are out of work. The figure is $13.9 \%$ for urban dwellers (although the urban unemployment rate has been shrinking since 2000 , when it exceeded $20 \%$ ). The typical profile of the unemployed Moroccan citizen is a young person, a citydweller and a graduate of higher education (without job prospects) who has been unemployed for a long time. Unemployment affects women more (only one in four women of working age is in work), with fewer graduates and more workers in the informal sector.

Unemployment in Tunisia is very high. After approaching $20 \%$ in the post-revolution period, it has recently stabilised at about $15.5 \%$, higher than the $13.5 \%$ recorded between 2001 and 2010. Unemployment is characterised by large regional, generational and gender gaps that have tended to widen with the crisis.
2.2 An economic model with little job creation, dominated by the size of the informal sector

The labour market does not cater for young people reaching working age. In Morocco, the unemployed do not benefit from growth that generates few jobs. The Moroccan economy sustained a net loss of 37,000 jobs in 2016, after having created an average of only 27,000 jobs in 2014 and 2015 and some 95,000 between 2008 and 2013. In 2016, the falloff can be explained by the loss of 63,000 jobs in
rural areas while only 26,000 jobs were created in urban areas. In Tunisia as well, economic growth has not been high enough (or job-creating enough) to absorb growth in the labour force - some 65,000 new arrivals each year over the past 15 years. Although the 2011 revolution laid bare an economic system that was on its last legs and was incapable of reform, it also made a difficult situation worse, with some 200,000 jobs lost between January 2011 and May 2012.

One feature of the labour market in the Maghreb countries is the segmentation between a formal sector on the one hand and an unregulated informal sector on the other. In Algeria, the restructuring of the market public sector as part of the 1994 structural adjustment plan - introduced with the help of the World Bank and the IMF - led to more than 400,000 people being made redundant. The long-term labour glut that ensued did not diminish until the middle of the 2000 s, due to the large-scale creation of jobs outside of the social security system. This laid the foundations for the current Algerian labour market, which is segmented into a structured, formal primary market (permanent jobs, covered by social security), i.e. $62 \%$ of the employed labour force and an informal secondary market (non-permanent, low value-added jobs for which there are no employment contracts and that are unaffiliated with social security), which accounts for $38 \%$ of the employed labour force.

In Tunisia, the majority of jobs in the Tunisian private sector are limited to activities with a low technological content that are low value-added and have low productivity. Jobs pay little and are sometimes precarious in the informal sector (estimated at $30 \%$ of GDP and $50 \%$ of jobs), with nonexistent social protection, even though this may change with the growth of certain sectors, such as digital technology.

In Morocco, jobs with employment contracts and the associated social security coverage remain the exception. The country's cumbersome and restrictive Labour Code (minimum wage, low flexibility, dismissal constraints) contributes to restricting demand by companies, and also explains why it is difficult to gain access to formal employment. In 2013, out of the 10.5 million jobs in Morocco, the Office of the High Commissioner for Planning estimated that 2.4 million jobs were in the informal sector nearly a quarter of the total volume of employment. This job insecurity particularly affects young people.

### 2.3 An education system unable to meet the needs of the labour market

In Algeria, despite significant investments in higher education, there is a gap between human capital and labour market needs. Although the number of students rose from less than 60,000 in 1980 to more than 1 million in 2011, the high percentage of students majoring in the social sciences and humanities (nearly 65\%) is not meeting the economy's current needs. Today, the authorities are making a shift towards introducing certification training courses that are more adapted to the needs of the labour market. In Tunisia, the policy of massive access to education, including higher education, based on free education, has sometimes been at the expense of quality. The Tunisian education system, which favours theoretical teaching methods, often appears disconnected from the needs of companies and the expectations of young graduates. This situation is largely responsible for the unemployment of young highereducation graduates, which far exceeds that of people with a lower level of education. In Algeria it was 16.7\% in 2016, higher than for those with a lower educational level (9.5\% for secondary education, $10.6 \%$ for the middle cycle). In Tunisia, this same rate soared from $2.3 \%$ in 1984 to more than $25 \%$ at present, of which about $50 \%$ are recent graduates (less than a year).

The situation is different in Morocco: primary education for younger generations is nearly universal, but there is considerable room for improvement with respect to secondary education. According to data from the Office of the High Commissioner for Planning, $45 \%$ of those aged 25 and over are illiterate. However, given the progress made in primary school enrolment, illiteracy should gradually disappear. For the rest of the population, $21.2 \%$ have a primary education, $12.3 \%$ attended middle school, $10.2 \%$ went to high school and $8 \%$ have a high school diploma or higher education degree. The quality and productivity of the labour force is therefore still too low to meet the needs of the labour market.

The dissatisfaction of young people in Morocco and Tunisia who are unable to find acceptable employment opportunities in the private sector has the twofold consequence of delaying their entry into the labour market to find a job perceived as acceptable in terms of their education (preferring unemployment over a poor job) and increasing the tendency to turn towards the public sector, which offers better pay, greater job security, and many benefits.

However, it is less able than before to absorb large numbers of people because of the countries' increasing fiscal constraints.

The most worrying phenomenon is the increase in the population of NEETs (Not in Education, Employment, or Training), who are far removed from the labour market. These young people have often given up looking for work. In Tunisia, the NEET phenomenon affects one in three young men in rural areas and one in five in urban areas. In 2015, Morocco had about 2.7 million young dropouts aged 15 to 29, according to data from the Office of the High Commissioner for Planning.

### 2.4 Migration flows ease the pressure on the labour market

The number of Moroccan emigrants grew strongly in the 2000s (reaching 2.6 million in 2010/2011, according to the OECD), then fell sharply due to the economic crisis in Europe. By 2014, it was 800,000. These movements of labour, which helped ease pressure on the domestic labour market, are no longer applicable following the economic crisis that affected northern Mediterranean countries. More and more Moroccan emigrants are trying to return to Morocco. These returnees, who are mostly well-educated, represent development opportunities for their countries of origin. Remittances from Moroccans living abroad also play a structural role in Morocco's macroeconomic and external balances. These transfers reached a record high in 2016, at MAD 62.2 bn ( $€ 5.8 \mathrm{bn}$, or $6.3 \%$ of GDP), equivalent to the country's tourism revenue.

Traditionally, Tunisia has also been a land of emigration: there are 1.4 million Tunisians living abroad, or more than $11 \%$ of the population. This Tunisian diaspora, half of which is employed, generates TND 3.9bn each year ( $€ 1 \mathrm{bn}$, or $4.3 \%$ of GDP). However, the net migration balance, which is usually negative, since some 17,000 people emigrated each year in the 1990s and 2000s, has been slightly positive since 2011, due to the return of thousands of Tunisians residing in Libya.

In Algeria, the current demographic situation, which is one of high youth unemployment and high educational achievement, does not appear to be driving up the number of potential departures: between 2010 and 2015, net migration remained stable at around 143,000 net outflows (UN 2017).

## 3. The ageing challenge in Maghreb countries

### 3.1 A still-moderate increase in the number of seniors

If, for the time being, the increase in the proportion of seniors (second phase of the demographic transition) remains moderate, this is set to speed up. By 2050, the population structure in the Maghreb countries is expected to shift, with a decline in fertility (an average of 1.89 children per woman) and an increase in life expectancy (81 years) leading to a rising dependency ratio.

In Algeria, although the proportion of young people under 15 is decreasing and that of the working age population is

Chart 2: Dependency ratios in the Maghreb countries since 1950


Source: United Nations World population prospects 2017.

### 3.2 Reforming social protection to ensure its sustainability

The social security systems in the Maghreb countries are holdovers from the colonial period: they are compulsory, professional and contributory, but cover only part of the population due to the size of the informal sector. These schemes are not sustainable beyond the more favourable phase of the demographic transition, even if their limits are for the moment offset by intergenerational solidarity. Morocco and Tunisia have become aware of the coming difficulties, especially in terms of the quality and sustainability of health services.

In Morocco, pension schemes still cover only $37 \%$ of the employed labour force. At present, pension coverage is for salaried workers only, even if an act on pensions for nonsalaried workers and the self-employed, which was passed in early November 2017, promises to extend social security coverage to non-salaried workers ( 5.7 million people, or $49 \%$ of the working population). In 2015, the ratio of
rising, the number of seniors (65 and over) has increased slightly. Morocco is experiencing the largest decline in the proportion of young people and an acceleration in the ageing of its population. In Tunisia, the proportion of people under 15 has halved since the end of the 2000s, while the proportion of people over 65 has doubled. These shifts have also affected the dependency ratio, which has improved over the last three decades.

Chart 3: : Dependency ratios since 1950


Source: United Nations World population prospects 2017.
contributors/beneficiaries of all pension funds taken together was 3.4 and the pension insurance sector has a technical deficit of $€ 231 \mathrm{~m}$. Even taking financial products into account, the two main pension funds have a reduced financial sustainability horizon: six years for CMR, the civil servants' pension scheme and 23-24 years for CNSS, the private-sector fund. A parametric reform of CMR was introduced in 2016, which eased the burden (the retirement age was raised to 63, contributions were increased and benefits were trimmed). In the longer term, the Moroccan authorities are considering a systemic reform of pension schemes to be able to cope with the retirement of a large population when the time comes.

Tunisia's pension scheme, which is a pure contributory system, is out of step with the country's current demographic and economic situation. It is based on two separate funds (the National Pension and Social Welfare Fund for the public sector and the National Social Security Fund - CNRPS and CNSS, respectively). Its chronic deficit now stands at more than $1 \%$ of GDP, and appears to be
unsustainable in the medium term. First, Tunisians in both the private and public sectors can retire at 60 , and the wage replacement rate is above $80 \%$, while the authorities have difficulty collecting social security contributions - which incidentally are high - particularly from State-owned enterprises. However, ongoing negotiations to extend the retirement age in the public sector are not simple. Numerous studies show the need for an in-depth reform of this system, whether via a parametric reform or by diversifying the sources of financing with the creation of a new levy such as a General Social Security Contribution (CSG).

Algeria has an advantageous dependency ratio, with the population over 65 years of age representing only $6 \%$ of the total population; this is one-third of the proportion in Western Europe. In principle, this should help finance the country's social protection schemes. Nevertheless, due to the high levels of non-affiliated employment, the Algerian social security funds are facing significant revenue losses.

It has been estimated that the National Social Security Fund for Non-Salaried Workers (CASNOS), which should cover almost a third of the employed labour force, collects barely $5 \%$ of the potentially collectable contributions. At the same time, the wage replacement rate of full-rate pensions for retirees remains high, at $80 \%$ of the reference salary (the five top earning years) for 32 years of contributions, with an estimated effective replacement rate of $65 \%$. The system is thus becoming less and less contributory and this is undermining its sustainability. A growing portion is financed from the central government budget, and draws on a pension reserve fund set up in 2006 into which $3 \%$ of oil tax revenue is paid. A growing proportion of the population that has not contributed enough benefits from assistance schemes such as the minimum old-age pension. However, since social protection is partly based on intergenerational solidarity, the poverty rate for older people ( $5.6 \%$ for those over 60 ) remains below the rest of the population, at an average of $10.1 \%$.

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[^0]:    Source: United Nations World Population Prospects 2017

