



AfDB

2013
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Economic Brief

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The Search for Inclusive Growth in North Africa: A Comparative Approach

Key messages

- This paper shows that the longstanding relationship between growth and distribution in economics has been revived in recent years with greater focus on inclusive growth as growth that is capable of benefiting much larger sections of the society.
- The extensive descriptive review of a broad set of development indicators for the past two decades and an estimation of a combined single score for measuring ‘inclusive growth’ for individual countries has shown that overall North Africa has fared relatively better recently both in historical terms and compared to many other regions.
- Moreover, the same decade saw a raft of other encouraging achievements: life expectancy rose, educational and health indicators improved, the number and proportion of slum dwellers declined and more people enjoyed civic amenities such as access to improved drinking water and sanitation.
- The main area where the region has noticeably lagged behind the rest of the world in recent years is its demographic momentum. Taking population size and growth into account qualifies some of the positive economic achievements of the region in the past decade. GDP growth in per capita terms appears much more modest. Strong supply-side demographic pressures will no doubt continue to persist for years and will accentuate the challenge of achieving inclusive growth in North Africa.
- This leads us to conclude that no matter what notion of inclusive growth we adopt, for the region, generating high quality employment will be an essential element and will pose one of main challenges to prospects for achieving inclusive growth. This was also clearly borne out by our estimations of the IG score and the sensitivity analysis which underscored yet again the importance of employment indicators in the region.

1. Introduction

Interest in the relationship between growth and equity has deep roots and a long history in economic thinking and development debates. Traditionally, thinking has been divided between those who favour focusing on efficiency and growth as the best way to overcome poverty and inequality and those who advocate explicit policies to assist the poor even if this might come at the expense of a slower overall growth rate

(Bourguignon, 2000: 2). In recent years, however, thinking has evolved beyond such a presumed trade-off with calls for a better understanding of the relationship between growth and distribution.

Recent developments in Africa and Asia have contributed to this re-think. For instance, the “African Renaissance” of the last decade with growth rates averaging 6% per annum during

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2001-08 has failed to create a significant reduction in poverty with inequality rising both between and within countries (JICA, 2012: 6). Asia's experience of rapid and sustained growth, on the other hand, has demonstrated that considerable poverty reduction is indeed possible in the face of persistent, and widening, inequalities. This has in turn led to a sharper differentiation between policies dedicated to fighting poverty and those aiming to improve equality, and more generally, to greater interest in making growth more 'inclusive' to benefit the widest social and economic groupings. Significantly, inclusive growth now features as one of the main pillars in the strategic priorities of both the Asian Development Bank (Strategy 2020) and African Development Bank (2013-22; see ADB, 2008, and AfDB, 2013).

Recent developments in the Middle East and North Africa (MENA) region too have raised similar issues relating to the nature and type of growth experienced in the region. The outbreak of mass protests against authoritarian regimes – dubbed the 'Arab Spring' – has shown how a narrow focus on growth and a failure to consider its wider ramifications can have far-reaching consequences. These uprisings in the main occurred against a somewhat paradoxical background of a period of relatively improved economic performance in the region. During 2000-10, for instance, MENA's real GDP growth averaged around 4%-5% a year (Hakimian, 2011) including Tunisia, Libya, Yemen and Egypt, where autocratic regimes were swept away by mass revolts after 2010. Yet, the region continued to suffer from social and economic disparities with persistently high unemployment, particularly amongst the youth. A trickle-down mechanism to spread the benefits of growth was either absent or not sufficiently robust to stem social and political unrest. An overriding economic lesson of

the decade before these uprisings is therefore that it is not growth per se but the type and pattern of growth achieved that matters as well.

As the new administrations in the region begin the daunting task of charting their future, their ability to combine an acceleration of growth with a marked reduction of inequality and poverty remains a real challenge. Achieving a more inclusive growth for the benefit of wider sections of the society will be an important mark of differentiation between the future and the past or else they risk considerable and continued disillusionment and discontent.

This paper considers North Africa's recent trajectory of growth and considers critically its prospects for achieving inclusive growth in light of the recent political and social upheavals. We start first by reviewing the evolution of thinking on growth and distribution in economic theory and development policy showing how pro-poor growth strategies have given way to concerns about inequality in recent years (Section 2). In Section 3, we examine the concept of inclusive growth examining whether and to what extent it differs from pro-poor growth both analytically and in practice. Section 4 deals with a wide range of performance indicators pertaining to growth and distribution in Algeria, Egypt, Libya, Morocco and Tunisia. We analyse, where possible, the experience of these countries over time and in a comparative context with other developing regions. Section 5 then offers a methodology for constructing a single combined score for measuring inclusive growth in these and a number of other Less Developed Countries for comparison purposes. We end by critically re-examining prospects for inclusive growth in North Africa and challenges and opportunities this course of development strategy may entail in years to come.

2. From Growth and Equity, to Poverty Reduction, and Back?

Concerns about growth and inequality go back a long way in economic thinking and policy debates. Early post-war thinking on the subject was influenced by Kuznets' seminal work in 1955 which posited an 'Inverted-U Hypothesis' between growth and income distribution (Kuznets, 1955). Accordingly, growth was initially expected to have a detrimental effect on inequality but this was eventually to be reversed during the course of long-term economic growth.

This influential view was to a large extent rooted in development thinking at the time which saw structural transformation and growth making differential impacts on different sectors and regions. Accordingly, given that some sectors and regions were likely to benefit more first, inequality was expected to worsen initially. However, with the benefits of growth and transformation spreading to more sectors and regions, the rising trend of inequality would be expected to be reversed and equality would improve. More specifically, this process was driven by shifts in surplus labour from the poorer and less productive traditional (or subsistence) sector to the more productive (or capitalist) sector. As the weight of the sector with greater inequality (modern sector) rises and simultaneously the gap between the two sectors widens, overall inequality would deteriorate at first (McKinley, 2009:12). With inequality eventually stabilising, the impact of growth on equality would thus show up as an inverted-U shape.

While Kuznets' empirical work was based on the historical experience of three developed countries only (the USA, England and Germany), his influence was nevertheless pervasive enough to elevate his contribution to something of an 'iron law' in the course of growth and development. This was despite the fact that subsequent empirical investigations failed to give a conclusive support in favour of the inverted-U hypothesis. While Barro found empirical support for it in two successive studies (2000 and 2008), other studies cast a shadow of doubt on the empirical validity of this hypothesis. For instance, some studies have pointed out to differences in Asia where rapid periods of growth (such as in Korea and Taiwan between the 1970s and 1990s) were not accompanied with deteriorating income inequality (Ali, 2007a: 8). Similarly, based on a comprehensive study of the Gini index with some 682 observations for 108 countries, Deininger and Squire (1996) failed to find empirical support for Kuznets' inverted-U curve.

Empirical ambiguities aside, the wider policy implications of such a

simple, and yet powerful, hypothesis were perhaps more important. At one level, the Kuznets curve seemed to imply that a degree of deterioration in inequality was inevitable at least in early stages of growth and structural transformation. On the other hand, this pessimistic and short term outlook was countered by optimism in the long run since growth would eventually pave the way for an improvement in income distribution. What delineated the two phases was a 'trickle down' mechanism or process which would ultimately kick in, spreading out the benefits of growth. This influential view – placing efficiency and growth before distribution – became dominant during the 1960s as well as during the structural adjustment reforms of the 1980s and early 1990s (Bourguignon, 2000: 3).

The 1970s, however, saw a major rethinking of the subject. This was led by another seminal work in 1974 – *Redistribution with Growth* – which sought to reposition equity at the heart of the development agenda (Chenery et al, 1974). Questioning the primacy of growth over distribution, the authors argued that, given the weight of the rich in GNP, a strategy of maximising growth was bound to be inherently pro-rich. It was therefore no surprise that the policies adopted to maximise growth entailed in the main a range of market- and business-friendly policies (such as lower income and corporate taxes, wage-restraint and low inflation policies), which have since become the norm though they have at the same time been adorned as 'pro-poor' in their impact (McKinley, 2009: 15). From this perspective, however, what was advocated was not so much a redistribution of assets in favour of the poor as the reallocation of public investment to bring about a more just distribution of resources over time (McKinley, 2009: 16).

While the influence of this book was largely limited and its main message drowned in the global economic crisis that followed the first oil shock in the mid-1970s, debates had moved on and poverty was gradually moving centre stage of the development agenda. This paved the way for a more explicit formulation of the case for fighting poverty through 'pro-poor' policies. This in turn required a more holistic and strategic framework to address the inter-relationships between growth, inequality and poverty – beyond the simple growth-distribution trade-off – and the attraction of 'Pro-Poor Growth' (PPG) policies was in the fact that they seemed 'to satisfy both growth enthusiasts and equity advocates by bringing both objectives into a common analytical framework and value system' (McKinley, 2009: 3).

At a very general level, it was relatively easy to agree over the broad steer for pro-poor policies as those policies that are ‘good for the poor’. Agreement over the definition of the poor was, however, more challenging given two alternative approaches. If poverty was identified in absolute terms (such as a simple headcount of those below an international poverty benchmark such as \$1.25 or \$2 a day), then PPG policies could be measured simply by their impact on the poor irrespective of what happened to the income of the rest of the population (those above the benchmark). In this case, both the extent of poverty (the proportion of the people below the poverty line) and its depth (how far most poor people were below that line) depended merely on the rate of growth of income for the poor alone. For instance, for two countries starting with the same benchmarked poverty ratio, the one enjoying a higher rate of income growth for its poor would be more successful in reducing the incidence of poverty (its extent and/or its depth) compared to the other country where its poor experience a slower income growth rate.

A different situation arises, however, if poverty is defined in relative terms, such as in relation to a national poverty line (for instance as a proportion of national mean or median income). In this case, for growth to be ‘pro-poor’ the growth of income for the poor has to exceed the rate of growth for the income of the population as a whole (DFID, 2004). A corollary of this is, therefore that for growth to be pro-poor, income inequality as a whole must fall regardless of how the income of those below the absolute poverty line fares.

The distinction between absolute and relative notions and measurements of poverty can lead to two anomalies. First, it is easy to conceive of the fight against poverty succeeding in absolute terms while income distribution as a whole deteriorates (the rich get richer faster than the incomes of the poor improve). Second, the converse is also possible: income distribution may improve while poverty actually deteriorates (for instance during a recession, if the poor suffer less compared to the average contraction in incomes).

These two different approaches to the notion and measurement of poverty lay at the heart of the debate between Ravallion and Kakwani whose seminal works focused on relative and absolute poverty respectively (Kakwani and Pernia, 2000, and Kakwani et al, 2004; Ravallion and Chen, 2003, and Ravallion, 2004). Kakwani, who was more concerned with the distributional consequences of growth, envisaged “pro-poor growth” as being the type of growth that would reduce poverty more than it would if all incomes grew at the same rate (Kakwani and Pernia, 2000). Ravallion, by contrast, focused on poverty itself, simply defining “pro-poor growth” as growth that reduces poverty. He also went as far as arguing that rapid growth is pro-poor because it is poverty-reducing (Ravallion, 2004). This was seen, for instance, in

the case of China which has managed to reduce extreme poverty through rapid growth.

While interest in pro-poor growth strategies had its obvious attractions for those concerned with poverty eradication, targeting absolute poverty was both easier and more practical from a policy point of view. This is, for instance, reflected in the Millennium Development Goal of halving income poverty by 2015 (DFID, 2004). In more recent years, however, PPG has given way to a broader interest in growth that is more inclusive in character and not limited to just the conditions and welfare of the poor.

An important impetus behind this gradual shift of opinion came from a stark reminder that achieving growth and a substantial reduction in poverty were indeed compatible with worsening income equality. As mentioned before, this was exemplified in Asia’s experience in the past two decades, where impressive growth rates have been combined with a notable decline in poverty alongside rising income inequalities. It has been estimated that every 1% growth in Asia has been associated with an almost 2% reduction in poverty, yet at the same time, data also indicate that income inequality has increased over time (Ali, 2007a: 2). Rapid growth between 1990 and 2005, for instance, pushed the number of those below the \$1-a-day poverty line down to 604 million from 945 million (almost halving the headcount ratio from 35% to 18%). Similarly, the number of those below the \$2-a-day poverty benchmark shrank from 2,046 million to 1,740 million reducing the headcount ratio from 75% to 52% of the total (Ali, 2007a: 2-3; see also Ali, 2007b on the extent of poverty incidence in Asia).

Much of this decline was attributed to rapid growth in China and Vietnam (in South Asia, in fact, poverty incidence remains high). Nevertheless, this experience shows that the pattern and pace of growth is indeed critical to poverty reduction, and moreover, reducing inequality and ensuring a more even and equal spread of the benefits of growth requires more than a narrow agenda to maximise growth. This was quite clear in the Asian context, where according to various indicators growth had an uneven impact on different groups. For instance, the Gini coefficient deteriorated in almost all countries (with the exception of Indonesia, Malaysia and Thailand, which were severely hit by the Asian financial crisis). Similarly, household expenditure surveys have shown widening gaps with the growth in per capita expenditure of the top quintile far exceeding that of the bottom quintile. In China this ratio was as high as 2.5, in India 3 and in Bangladesh a staggering 25 (Ali, 2007a: 5).

By the mid-2000s, therefore, there was a growing and widespread concern that growth had to be made inclusive to ensure a more equitable spread of its benefits to the widest population possible. For instance,

equity featured high on the agenda during the Indian national election in 2004, as well as subsequently, when the new government built concrete strategies into India's Eleventh Five-Year Plan (2007-12) to safeguard and promote the well-being of the poor and disadvantaged groups (Government of India, 2006; see also Klasen, 2010). Similarly, the World Bank's World Development Report in 2006 was devoted to 'Equity and Development', addressing the intrinsic value of equity and focusing on its positive impact on long term development (see also Ianchovichina et al, 2009).

Reflecting Asia's centrality to concerns about equity, the Asian Development Bank took the lead role in articulating the need for inclusive growth, going as far as adopting it as one of its 'strategic pillars'. This was formalised in ADB's Strategy 2020 which lists inclusive growth as the first of its three key development agenda (the other two being environmentally sustainable growth and regional integration; ADB, 2008). Such commitment was also reflected in advice given by the Eminent Persons Group, which was set up to develop ADB's strategy for inclusive growth. Reflecting on the potentially harmful impact of rising disparities on economic reforms or even on political stability, the Group favoured a solution based on "...the continuation of pro-growth economic strategies – but with a much sharper focus on ensuring that the economic

opportunities created by growth are available to all – particularly the poor – to the maximum extent possible" (ADB, 2007: 13–14).

Reflecting growing interest in, and concerns with prospects for equitable growth, the African Development Bank (AfDB) too has recently adopted 'inclusive growth' as one of its two strategic priorities for 2013-22 to broaden access 'to economic opportunities for more people, countries and regions, while protecting the vulnerable' (the other strategic priority being green growth 'to make growth sustainable'). In this approach, inclusive growth is conceptualised in terms of its four dimensions: economic inclusion, social inclusion, spatial inclusion and political inclusion (see AfDB, 2013: 10).

This interest has led to wider debates and a flurry of new contributions and literature dealing with many aspects ranging from the conceptual and analytical complexities of inclusive growth to its measurement difficulties and applications to specific country experiences.

The next section discusses the meaning and significance of inclusive growth and examines its broader implications for growth and development before turning to an examination of its ramifications in North Africa in Section 4.

3. What is Inclusive Growth?

Although growth is widely considered a necessary element in a country's ability to raise the standard of living of its population, it is recognised that growth alone cannot be relied upon to bring about a reduction in poverty or a desired improvement in the welfare of all. As we have seen, the quality of such growth, its sustainability as well as the degree to which its benefits may extend to the widest sections of the society have increasingly become of interest. This has led to greater attention being given to inclusive growth as a way of addressing equity considerations underlying the growth process in recent years (see Tandon and Zhuang, 2007; Ali, 2007a and 2007b; Rauniyar and Kanbur, 2010; Klasen, 2010; and Felipe, 2010; Ianchovichina et al, 2009, among others).

Concern about equity has had two main intellectual drivers. First, those who believe in an intrinsic value of equality view it as a matter of human rights and consider its violation as unethical or immoral. In this view, equity should form an integral part of the development agenda to ensure it is not sacrificed to higher growth and efficiency concerns. Second, greater equality is also deemed by some to have an instrumental value for long term and sustainable growth. From this perspective, inequality poses a risk to growth in a number of ways. For instance, 'it leads to inefficient utilization of human and physical resources, lowers the quality of institutions and policies, erodes social cohesion, and increases social conflict' (Ali, 2007b: 10).

Despite growing calls for growth to be made more inclusive, however, there is not yet a universally agreed definition of 'inclusive growth'. While growth is easier to define and measure, specifying what makes it 'inclusive' is much more contentious. There is some broad agreement that inclusive growth is growth for 'the benefit of most and not just the poor', but ambiguities and disagreements abound beyond this general notion and it seems that this approach too has encountered some of the conceptual and measurement challenges that the Pro-Poor-Growth debates confronted previously.

Taking a somewhat narrow approach, for instance, inclusive growth can be characterised as 'growth plus declining income disparities' (Rauniyar and Kanbur, 2010). In this formulation, inclusive growth comes close to the notion of PPG in relative terms with the difference perhaps that its notion of equality is more embracing and reaches beyond a narrow definition of the poor. This definition, it must be

noted, excludes non-income considerations and, therefore, lends itself much more easily to measurement (Klasen, 2010: 5).

By contrast and at another extreme, inclusive growth is also sometimes loosely referred to as 'growth that benefits everyone'. In this – perhaps its broadest sense – the concept seems to imply that growth should 'benefit all stripes of society, including the poor, the near-poor, the middle income groups, and even the rich' (Klasen, 2010: 2). But this is equally problematic and highlights the fact that it is not just who is to benefit from growth but the extent and distribution of such benefits are important considerations and should not be overlooked.

If income distribution is to improve and inequalities are to be reduced (a presumed aspiration behind the search for inclusive growth), then the poor and the rich should not be expected to benefit proportionately from growth (by an equal percentage rise in their incomes). Narrowing disparities would indeed require a progressive distribution of the benefits from growth in favour of the poorer sections of the society. From this perspective then inclusive growth comes close to the relative version of PPG with the difference that the definition of the 'poor' needs to be widened to allow broader social groups (lower and middle income groups) to benefit from growth. We shall come back to this later on.

Both the narrow and broad definitions referred to above face some complications. For instance, both are focused on income and emphasise outcomes only. More recent formulations have sought to address these by taking into account non-income elements of the growth process as well as characterising inclusive growth as a process and not just an outcome (Klasen, 2010).

For instance, some recent contributions have stressed the role of opportunities in generating inclusive growth. This is the case with the ADB's Eminent Persons Group which – as we saw earlier – refers to inclusive growth as 'economic opportunities' that are 'available to all – particularly the poor – to the maximum possible extent' (ADB, 2007: 13-14; emphasis added). Several other ADB contributions have similarly characterised inclusive growth as 'growth coupled with equal opportunities' (Ali and Zhuang, 2007; Ali and Son 2007) or even more specifically, 'inclusive growth focuses on both creating opportunities and making the opportunities accessible to all' (Ali and Zhuang, 2007:

10). Accordingly, this depicts inclusive growth as a process – rather than an outcome – whereby individuals are provided with improved opportunities to benefit from growth.

There is, however, some ambiguity over the precise role of the state in the inclusive growth process. For instance, are market forces to be relied upon to spread the benefits of inclusive growth (through improved opportunities for all) or is state intervention justified to enable individuals to improve their outcomes? The former approach, which is arguably a ‘trickle down’ version of the inclusive growth approach, is seen in the World Bank’s 2006 Development Report on ‘Equity and Development’, which defines equity broadly as ‘equal opportunities to pursue a life of one’s choosing.’ In a similar light, *lanchovichina et al* emphasise that inclusive growth is about ‘raising the pace of growth and enlarging the size of the economy’ and not about ‘redistributing resources’ (2009: 3).

For others, however, the provision of public and social goods as well as safety nets and social protection are also important elements of the inclusive growth package. Accordingly, *Ali and Son* (2007) refer to the provision of social opportunities (such as access to health and education) and how these may vary with income levels. Similarly, the World Bank’s Commission on Growth and Development talked of inclusiveness as a concept encompassing ‘equity, equality of opportunity, and protection in market and employment’ (World Bank, 2008).

Matching this desire to improve opportunities, attention has inevitably been drawn to understanding and recognising the roots of unequal opportunities. *Roemer* (2006) ascribes differences in outcomes (such as income differentials for individuals) to two broad sets of factors: differences in individual efforts (which can be controlled by individuals themselves) and differences in their circumstances (which cannot be helped by them alone). The latter – differences in circumstances – may in turn be understood at two sub-levels: individual-level circumstances (e.g., gender, size of household, one’s parental education and income, rural/urban and regional location, ethnic and religious backgrounds, etc) and wider circumstances relating to institutional setting and social policies in force (such as gender or ethnic discrimination, social exclusions, etc). As individuals cannot exert any direct influence over their circumstances, such differences are ‘not only ethically unacceptable’, they are indeed wasteful and should be ‘addressed through public policy interventions’ (*Ali*, 2007a: 9; *Velez et al*, 2012, offer an applied framework for measuring equality of opportunity for children in Egypt).

In this formulation, therefore, inclusive growth can improve individuals’ incentives to work harder and to look for new opportunities mainly

through their own efforts. What is required to achieve inclusive growth is accordingly a double process: one of creating better opportunities and another of ‘ensuring equal access’ to these opportunities for all segments of the society (*Ali*, 2007a, 10).

Focus on process helps to broaden the scope of the debate to include social and institutional aspects of growth and development. But it also throws up new challenges. One of these is how to deal with a trade-off between processes and outcomes. Is growth more – or less – inclusive when improved processes result in poorer economic outcomes? This can happen, for instance, when improvements in civil rights and greater mass participation in social and political affairs (such as following a revolution) may lead to a setback to economic outcomes through short-term instability and turmoil. A converse scenario is equally conceivable: if better outcomes are secured in the absence of any commensurate improvements in process, does that make the experience of growth undesirable? This can happen, for instance, with an economic boom under an autocratic regime in the absence of any real reforms or improvements in governance.

Such issues could be better addressed if we had a commonly agreed indicator for measuring inclusive growth (see *McKinley*, 2010). But, the conceptual difficulties and challenges we discussed above are inevitably mirrored in measurement difficulties and problems, too. If the benefits of growth are envisaged in terms of outcomes only (for instance, in terms of better income and/or access to social goods and safety net), measurement is generally easier given that such outcomes are more readily quantifiable. However, when access to and benefits from growth are envisaged in terms of processes, measurement becomes harder and more complex. According to *Klasen* (2010) the absence of a universally agreed notion of inclusive growth has led to a wide range of measurement indicators which vary from ‘unclear’ to ‘straightforward’ and ‘technically difficult’. We take up this issue in Section 5 below when we offer a methodology for computing a single combined score for the measurement of a country’s inclusive growth.

To sum up this section, we can see that growing interest in inclusive growth has not been matched by success over a universal definition that can help both implement and monitor policies for inclusive growth. A variety of approaches have emerged with emphases on different aspects of the concept. Narrower concepts stress outcomes (e.g., growth plus equity) and are easier to measure and monitor. Wider concepts are multi-dimensional and hence more ambitious in scope: they stress improved opportunities for achieving better outcomes; they differentiate between processes and outcomes in inclusive growth and they widen outcomes to include non-income aspects (social

goods and safety nets). An implicit risk is that an overambitious notion of inclusive growth becomes both meaningless and impractical if it comes close to advocating ‘everything for everyone’.

In the next section, we deal with some of the main economic and social indicators in North Africa over the past two decades. We will

examine whether and to what extent the experience of growth in this period has been inclusive from a broad macro perspective. We will provide comparisons with other regions and focus on the main economic outcomes and opportunities by examining a variety of different indicators relating to growth and transformation on one hand and access to social and public goods, on the other.

4. Inclusive Growth in North Africa

4.1 Growth and Structural Change

North African countries' recent economic performance indicates a much improved record compared to the 1980s, when 'slow growth' posed a threat 'to social development' in the Arab world as a whole. For instance, GDP per capita in the median Arab country in the period 1985-94 was as low as 1.1% per annum only (Elbadawi, 2005; see also Esfahani, 2009). In contrast, real GDP growth rate for the Arab countries and the MENA region as a whole rose markedly after the mid-1990s to reach around 4%-4.5% per annum and was sustained thereafter (Table 1).

North Africa's average real GDP growth was even higher. In the last decade preceding the Arab uprisings (2000-2010), Egypt, Libya, Morocco and Tunisia all experienced annual growth rates of between 4.4% and 4.9% with only Algeria recording a lower growth (3.7%).

In comparative terms, too, North African growth rates in this period compared favourably with most other regions. For instance, they surpassed those of East Asia (3.7%) and Latin America (3.4%) and were just above that for the MENA region as a whole (4.3%). However, they fell marginally behind Sub-Saharan Africa (4.8%) and well short of South Asia (exceeding 7%).

Table 1: Real GDP and Real GDP Per Capita Growth Rates in North Africa & Other Regions (1991-2010)

| | Real GDP growth (average annual %) | | | | | Real GDP per capita growth (average annual %) | | | | |
|----------------------------|------------------------------------|-----------|-----------|-----------|-----------|---|-----------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2010 | 2000-2010 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2010 | 2000-2010 |
| Algeria | 0.3 | 3.1 | 4.9 | 2.5 | 3.7 | -1.9 | 1.6 | 3.4 | 1.0 | 2.2 |
| Egypt | 3.4 | 5.2 | 3.5 | 6.2 | 4.9 | 1.6 | 3.4 | 1.6 | 4.3 | 3.0 |
| Libya | | 3.7 | 4.3 | 4.5 | 4.4 | | 1.8 | 2.3 | 2.3 | 2.3 |
| Morocco | 1.1 | 4.0 | 5.0 | 4.9 | 4.9 | -0.6 | 2.5 | 3.8 | 3.8 | 2.8 |
| Tunisia | 3.9 | 5.6 | 4.4 | 4.6 | 4.5 | 2.0 | 4.2 | 3.4 | 3.6 | 3.5 |
| Arab World | 3.8 | 4.0 | 4.4 | 4.5 | 4.4 | 1.4 | 1.8 | 2.1 | 2.1 | 2.1 |
| MENA* | 4.1 | 4.1 | 4.2 | 4.4 | 4.3 | 1.8 | 2.1 | 2.1 | 2.3 | 2.2 |
| East Asia & Pacific* | 3.5 | 2.7 | 3.5 | 3.9 | 3.7 | 2.2 | 1.6 | 2.7 | 3.2 | 2.9 |
| Latin America & Caribbean* | 3.3 | 3.2 | 2.7 | 4.1 | 3.4 | 1.6 | 1.6 | 1.3 | 2.9 | 2.1 |
| South Asia | 5.0 | 5.4 | 6.5 | 7.7 | 7.1 | 2.9 | 3.5 | 4.9 | 6.2 | 5.5 |
| Sub-Saharan Africa* | 1.2 | 3.5 | 4.6 | 5.0 | 4.8 | -1.5 | 0.8 | 2.1 | 2.4 | 2.2 |
| World | 2.3 | 3.4 | 2.8 | 2.3 | 2.5 | 0.8 | 2.0 | 1.5 | 1.1 | 1.3 |

Note: *Refers to countries at all income levels.

Source: Calculated from WDI (2012).

This picture is somewhat moderated if we take into account the high population growth rates in the Arab world in general although the improved trend-line performance since the mid-1990s is still clear. This is especially true of Algeria and Libya, where a fast demographic pace scaled down real per capita growth rates to just over 2% per annum in the past decade, which is on par with the rest of the MENA region. Egypt, Morocco and Tunisia, on the other hand, experienced superior per capita real growth rates of 2.8%-3.5% in the same period.

In comparative terms, the overall performance of North Africa is at least comparable to, if not above, other regions' (for instance, compared to East Asia's 2.9% per capita growth rate) and is again outpaced only by South Asia's 5.5% per capita annual growth rates.

Interestingly, and as mentioned before, this generally better record of economic performance during the period 2000-10 applies also for those countries that have been affected by political upheavals since

2010. For instance, Egypt, Libya, Tunisia (and Syria) all exhibited real growth rates of about 4.5% in the decade before these upheavals (averaging around 4.5%) and did sometimes even better (Egypt's growth rate for 2006-10 was 6.2% on average; Table 1; see also Hakimian, 2011).

To understand the nature of growth and structural change in this period, Table 2 shows sectoral growth rates for Algeria, Egypt, Morocco and Tunisia (Libya is excluded for lack of data) since the

1990s. It can be seen that in general the service sector has provided the main impetus to the recent growth phase in North Africa. In Algeria and Tunisia, service sector's growth rate has in fact exceeded those of both agriculture and manufacturing. In Egypt, manufacturing growth has also been fast. Only in Morocco has agricultural growth consistently outpaced the other two sectors.

We shall come back to this issue later when considering the contribution of these sectors to employment and job creation.

Table 2: Average Real Annual Sectoral Growth in North Africa, 1991-2009 (%)

| | Agriculture | | | | | Industry | | | | | Services | | | | |
|----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 |
| Algeria | 4.5 | 3.9 | 7.3 | 1.6 | 4.8 | -0.5 | 4.0 | 4.1 | 1.6 | 3.0 | 1.0 | 2.2 | 5.1 | 5.4 | 5.2 |
| Egypt | 2.7 | 3.4 | 3.4 | 3.4 | 3.4 | 6.9 | 5.1 | 3.0 | 7.5 | 5.3 | 1.6 | 5.7 | 4.3 | 6.1 | 5.2 |
| Morocco | - | 10.6 | 7.7 | 9.3 | 8.5 | 2.1 | 3.7 | 4.1 | 3.3 | 3.7 | 3.6 | 3.6 | 5.1 | 4.3 | 4.7 |
| Tunisia | - | 8.9 | 2.2 | 1.2 | 1.7 | 4.4 | 4.1 | 2.6 | 3.5 | 3.1 | 4.9 | 6.0 | 6.5 | 6.3 | 6.4 |

Source: Calculated from WDI (2012).

4.2 Demographic Trends and Characteristics

Tables 3 and 4 give an overview of the demographic changes and dynamics in North African countries compared to the rest of the world. It can be seen that the region as a whole has benefited from improvements in life expectancy combined with a sustained decline in infant mortality rates. The decline in the under-5 mortality rates has been particularly marked: by 2009 these rates were about one-third of those seen twenty years earlier (the only exception being Algeria, where it almost halved). Tunisia and Libya, in particular, have attained the lowest infant mortality rates in the region (16.1 and 16.9 per 1,000

respectively), although the pace of decline was fastest in Egypt (down from 93.5 to 21.8 per 1,000).

North Africa's decline in infant mortality is also faster than the MENA region as a whole (where it more than halved from 71 to 31 per 1,000) and compares favourably with other parts of the world. Tunisia, Egypt and Libya have rates well below the world standards including that of East Asia's (23 per 1,000). This is also true of life expectancy at birth with Libya and Tunisia achieving standards above MENA and other regions including East Asia (both at 74.5 years against the latter's 73).

Table 3: Demographic Trends in North Africa & Other Regions, 1990-2009

| | Life Expectancy at Birth, Total (years) | | | Mortality rate, under-5 (per 1,000) | | | Fertility Rate, Total (births per woman) | | |
|---------------------------|---|------|------|-------------------------------------|-------|-------|--|------|------|
| | 1990 | 2000 | 2009 | 1990 | 2000 | 2010 | 1990 | 2000 | 2009 |
| Algeria | 67.1 | 70.0 | 72.6 | 67.6 | 48.9 | 36.0 | 4.7 | 2.6 | 2.3 |
| Egypt | 62.7 | 69.1 | 72.7 | 93.5 | 46.5 | 21.8 | 4.4 | 3.3 | 2.8 |
| Libya | 68.1 | 72.5 | 74.5 | 44.5 | 27.2 | 16.9 | 4.8 | 3.1 | 2.6 |
| Morocco | 64.1 | 68.7 | 71.6 | 85.9 | 55.3 | 35.5 | 4.0 | 2.7 | 2.3 |
| Tunisia | 70.3 | 72.6 | 74.5 | 49.3 | 28.4 | 16.1 | 3.6 | 2.1 | 2.1 |
| Arab World | 63.2 | 67.4 | 69.9 | 84.9 | 64.1 | 51.4 | 5.1 | 3.8 | 3.3 |
| East Asia & Pacific | 69.0 | 71.0 | 73.0 | 53.4 | 37.2 | 23.0 | 2.5 | 1.9 | 1.8 |
| Latin America & Caribbean | 68.2 | 71.6 | 73.9 | 54.4 | 34.5 | 23.3 | 3.2 | 2.6 | 2.3 |
| MENA | 64.8 | 69.8 | 72.2 | 70.7 | 46.1 | 31.3 | 4.8 | 3.2 | 2.7 |
| South Asia | 58.5 | 61.9 | 65.0 | 120.3 | 88.8 | 67.0 | 4.2 | 3.3 | 2.8 |
| Sub-Saharan Africa | 49.6 | 49.8 | 53.8 | 174.6 | 154.8 | 121.2 | 6.2 | 5.6 | 5.0 |
| World | 65.4 | 67.2 | 69.4 | 89.9 | 74.7 | 57.9 | 3.2 | 2.7 | 2.5 |

Source: Calculated from WDI (2012).

Table 3 also confirms that after a significant delay, the region's demographic transition has started in this period. A marked reduction in fertility rates occurred between 1990 and 2009, when births per woman went down from 3.6-4.7 to 2.1-2.8. These rates are now on

par with South Asia (2.8 births per woman) and below that for the Arab world in general (3.3 births per woman). Again, Tunisia has the lowest fertility rate in the region (2.1 births per woman) which is closer to that for East Asia (1.8).

Table 4: Median Age and Age Dependency Ratios in North Africa & Other Regions, 1990-2010

| | Age Dependency Ratio (% Working Population) | | | | | | Median Age | | |
|---------------------------|---|------|------|------------|------|------|------------|------|------|
| | (over 65) | | | (under 15) | | | 1990 | 2000 | 2009 |
| | 1990 | 2000 | 2009 | 1990 | 2000 | 2010 | | | |
| Algeria | 6.7 | 6.7 | 6.7 | 80.9 | 55.5 | 39.6 | 18.1 | 21.7 | 26.2 |
| Egypt | 6.8 | 7.4 | 7.9 | 74.2 | 60.5 | 49.7 | 19.4 | 21.4 | 24.4 |
| Libya | 4.8 | 5.3 | 6.6 | 80.6 | 50.4 | 46.6 | 17.7 | 21.9 | 25.9 |
| Morocco | 6.8 | 7.6 | 8.3 | 70.4 | 54.4 | 42.1 | 19.7 | 22.6 | 26.3 |
| Tunisia | 8.0 | 10.0 | 10.0 | 66.5 | 47.2 | 33.7 | 20.8 | 24.7 | 28.9 |
| Arab World | 6.3 | 6.7 | 6.6 | 80.0 | 65.7 | 54.3 | - | - | - |
| East Asia & Pacific | 9.1 | 10.7 | 12.0 | 45.4 | 39.5 | 30.2 | 26.3 | 30.8 | 35.5 |
| Latin America & Caribbean | 8.3 | 9.2 | 10.6 | 61.4 | 51.0 | 42.7 | 22.0 | 24.5 | 27.6 |
| MENA | 6.7 | 7.2 | 7.0 | 80.9 | 61.8 | 46.9 | - | - | - |
| South Asia | 6.6 | 6.9 | 7.5 | 68.4 | 59.9 | 49.6 | 20.3 | 22.0 | 42.6 |
| Sub-Saharan Africa | 5.7 | 5.7 | 5.9 | 87.4 | 82.7 | 78.0 | 17.3 | 17.9 | 18.6 |
| World | 10.2 | 11.0 | 11.6 | 53.7 | 48.1 | 40.9 | 24.4 | 26.7 | 29.2 |

Source: Calculated from WDI (2012) and UN Population database (2012).

Reflecting the fast pace of population growth in the past few decades, Table 4 shows an age structure that is heavily skewed in favour of those under 15. Although declining, concentration is most notable in Egypt and Libya where the young (under 15) account for under half of the working population as a whole.

Furthermore, overall dependency ratios (combining the share of those below 15 and above 65) have been gradually declining: from highs of around 75% (Tunisia) and 87% (Algeria) in 1990, these have now gone down to around 43% (Tunisia) and 57% (Egypt) in 2009. Whilst this implies a favourable change in the structure of the population in favour of producers as opposed to consumers overall, as we shall see below the rise in the number of those within the working population group also poses serious challenges for the dynamics of the labour force and employment in the region and this is likely to continue for a while.

The young age structure of the region is also clear from low median age figures (around mid- to upper 20s) which are on par with those

of South Asia (around 24-25 years) and well below that of East Asia's (35.5).

4.3 Labour Force and Employment

Table 5 highlights the twin features of North Africa's labour markets: high labour force growth rates combined with lagging employment and job opportunities.

As seen above, high population growth over the past few decades has generated a demographic momentum that continues to swell the region's workforce. Although gradually moderating over the last two decades, annual labour force growth in parts of North Africa has been among the highest in the world. In Algeria and Libya, for instance, annual labour force growth rates reached around 4.5%-5.5% in the 1990s exceeding all regions including Sub-Saharan Africa. In the past decade, however, these growth rates have fallen considerably to around 1%-2% per annum.

Table 5: Labour Force Growth Rates and Employment-to-Population Ratios in North Africa & Other Regions, 1991-2009

| | Labour Force Growth, Average Annual (%) | | | | Employment-to-Population Ratios (% of population aged 15+) | | | | |
|---------------------------|---|-----------|-----------|-----------|--|-----------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 |
| Algeria | 5.4 | 4.5 | 3.6 | 2.2 | 23.7 | 22.9 | 27.6 | 36.3 | 31.5 |
| Egypt | 2.2 | 2.4 | 2.5 | 2.1 | 23.9 | 27.3 | 26.7 | 25.3 | 26.1 |
| Libya | 5.2 | 7.8 | 3.3 | 1.8 | 25.8 | 26.9 | 28.6 | 28.9 | 28.7 |
| Morocco | 3.3 | 2.6 | 2.4 | 1.3 | 39.8 | 39.5 | 35.6 | 34.9 | 35.3 |
| Tunisia | 3.4 | 2.5 | 2.0 | 1.3 | 27.8 | 25.6 | 23.7 | 22.7 | 23.2 |
| Arab World | 3.6 | 3.1 | 3.4 | 2.6 | 28.1 | 28.1 | 27.2 | 22.7 | 27.4 |
| East Asia & Pacific | 1.4 | 1.3 | 1.1 | 0.8 | 63.7 | 58.1 | 53.8 | 51.7 | 52.9 |
| Latin America & Caribbean | 3.0 | 2.7 | 2.6 | 1.4 | 48.2 | 46.2 | 44.5 | 45.1 | 44.8 |
| MENA | 3.6 | 3.5 | 1.8 | 2.4 | 28.0 | 28.2 | 28.0 | 28.5 | 28.2 |
| South Asia | 2.2 | 2.2 | 2.3 | 1.5 | 46.1 | 44.0 | 42.6 | 42.1 | 42.4 |
| Sub-Saharan Africa | 3.2 | 3.1 | 3.0 | 2.3 | 48.8 | 48.7 | 48.8 | 49.4 | 49.1 |
| World | 1.6 | 1.7 | 1.7 | 1.1 | 51.5 | 47.9 | 45.7 | 45.1 | 45.5 |

Source: Calculated from WDI (2012).

There is no doubt that supply-side demographic developments pose a serious challenge to the region's ability to provide employment and job opportunities for the significant number of labour market entrants every year. Table 5 also shows that the regions' fast labour force growth goes hand in hand with generally low employment-to-population ratios especially compared to other regions. The Arab world and the MENA region as a whole exhibit some of the lowest

ratios indicating the combined effects of both a large pool of job-seekers and limited employment opportunities. For the MENA region as a whole only about 28% of the population over 15 years are employed and this ratio has been remarkably constant over the past twenty years (even slightly declining in the Arab countries). In North Africa, only Algeria has seen a relative improvement in recent years (rising to over 31%) in contrast to Egypt where low employment-to-

population ratios have persisted (around 25%-26%). Reflecting the severity of the employment situation in Tunisia, these ratios have been the lowest as well as declining recently (from about 28% to around 23%).

In general, the region's employment-to-population ratios compare poorly with the rest of the world, especially with that of South Asia (42.4%), Latin America (45%) and East Asia (nearly 53%).

Table 6 further indicates that the prognosis for the region's employment problem could indeed be even more challenging in the years to come. It shows that the current population bulge within the working age groups comes against some of the lowest overall labour force participation rates (LFPR) in the world. The region's overall LFRP is around 51%-52% compared to 60%-70% in other regions. As more of the population become active, this can only add to pressures on jobs and employment in future.

Table 6: Labour Force Statistics in North Africa & Other Regions, 1991-2009 (Period Averages)

| | Labour Force Growth, Average Annual (%) | | | | | Labour Force, Female (% of total labour force) | | | | |
|---------------------------|--|-----------|-----------|-----------|-----------|---|-----------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 2001-2009 |
| Algeria | 51.0 | 54.2 | 56.5 | 58.1 | 57.2 | 24.6 | 27.0 | 29.6 | 31.2 | 30.3 |
| Egypt | 50.1 | 49.2 | 48.3 | 48.1 | 48.2 | 25.8 | 24.7 | 24.0 | 23.7 | 23.9 |
| Libya | 47.7 | 49.7 | 51.7 | 52.4 | 52.0 | 16.7 | 20.5 | 22.6 | 22.7 | 22.7 |
| Morocco | 53.0 | 53.8 | 52.0 | 52.3 | 52.1 | 24.6 | 26.2 | 25.1 | 26.0 | 25.5 |
| Tunisia | 48.2 | 48.3 | 47.8 | 48.0 | 47.9 | 22.6 | 24.3 | 25.6 | 26.6 | 26.0 |
| Arab World | 51.1 | 51.5 | 51.4 | 52.0 | 51.7 | 23.0 | 23.8 | 24.2 | 24.5 | 24.3 |
| East Asia & Pacific | 74.9 | 74.2 | 72.7 | 71.4 | 72.1 | 43.6 | 43.6 | 43.6 | 43.7 | 43.7 |
| Latin America & Caribbean | 62.3 | 62.9 | 63.9 | 65.3 | 64.5 | 35.6 | 37.2 | 38.8 | 40.2 | 39.4 |
| MENA | 50.5 | 50.9 | 51.1 | 51.6 | 51.3 | 22.4 | 23.9 | 24.5 | 25.0 | 24.7 |
| South Asia | 60.5 | 59.5 | 58.8 | 58.8 | 58.8 | 28.1 | 28.0 | 27.9 | 28.7 | 28.3 |
| Sub-Saharan Africa | 69.4 | 69.7 | 70.2 | 70.5 | 70.3 | 42.2 | 42.7 | 43.2 | 43.3 | 43.2 |
| World | 66.2 | 65.6 | 65.0 | 64.8 | 64.9 | 39.5 | 39.6 | 39.7 | 40.0 | 39.8 |

Source: Calculated from WDI (2012).

Underlying the region's low LFPR is indeed very low female labour force participation rates – again some of the lowest by world standards. In general, female workers make up only about a quarter of the total workforce in North African countries (Algeria has a higher ratio of just over 30%). As shown in Table 6, the norm elsewhere is around 40% (with the exception of South Asia where it is around 28%). A rise in women's economic activity levels in the coming decades can only boost labour supplies adding to competition over scarce jobs. Supply-side forces are thus likely to continue to compound the region's employment challenges and limiting its overall ability to generate new jobs.

To analyse the changing nature of jobs, the next two tables disaggregate employment data by sector and status. Table 7 shows that for those countries for which data is available (Algeria, Egypt and Morocco), the services sector is the largest provider of jobs. In Algeria and Egypt around half of all jobs are concentrated in the services. Only in Morocco, where agricultural jobs have seen an upturn, has the relative share of both services and industry been following a downward trend (see also Table 2 above on the rapid pace of agricultural growth in Morocco).

**Table 7: Employment by Economic Sector in North Africa, 1991-2009
(Period Averages - % Total)**

| | Agriculture | | | | Industry | | | | Services | | | |
|----------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 |
| Algeria | - | - | 21.0 | - | - | - | 24.8 | - | - | - | 54.1 | - |
| Egypt | 34.8 | 30.1 | 29.7 | 31.5 | 22.3 | 22.4 | 20.6 | 22.4 | 42.9 | 47.3 | 49.6 | 46.0 |
| Morocco | 11.4 | 5.6 | 36.9 | 42.1 | 32.8 | 34.0 | 22.1 | 21.0 | 55.5 | 59.8 | 41.0 | 36.7 |

Source: Calculated from WDI (2012).

Table 8 shows that with the exception of Morocco, family workers account for a low share of overall employment in North Africa. The bulk of employment is made up of mainly wage and salaried workers. Self-employment is relatively high in Egypt and Morocco although its

share has been broadly constant or falling in the last two decades. In Tunisia, by contrast, possibly reflecting the size of the public sector, wage and salaried workers account for around two-thirds of all employment.

**Table 8: Employment Status in North African Countries, 1991-2009
(% Total Employed)**

| | Contributing Family Workers | | | | Self-Employed | | | | Wage and Salaried Workers | | | |
|----------------|-----------------------------|-----------|-----------|-----------|---------------|-----------|-----------|-----------|---------------------------|-----------|-----------|-----------|
| | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 | 1991-1995 | 1996-2000 | 2001-2005 | 2006-2009 |
| Algeria | - | - | 7.8 | - | - | - | 36.8 | - | - | - | 55.9 | - |
| Egypt | 13.7 | 10.1 | 11.8 | 13.6 | 43.6 | 37.3 | 40.8 | 39.9 | 56.4 | 62.1 | 59.2 | 60.2 |
| Libya | - | - | - | - | - | - | - | - | - | - | - | - |
| Morocco | 19.2 | 21.5 | 25.8 | 25.1 | 51.5 | 48.5 | 55.2 | 55.3 | 48.5 | 47.4 | 42.4 | 44.1 |
| Tunisia | 0.9 | 7.6 | 7.9 | - | 29.2 | 31.1 | 33.4 | - | 70.2 | 68.3 | 66.5 | - |

Source: Calculated from WDI (2012).

Table 9 shows that MENA's unemployment rate has been consistently in double digits in the past twenty years and continues to exceed the rate for other regions (around 12% during the period 2001-2009 against 4%-8% elsewhere). Within North Africa, Algeria has suffered the highest unemployment rate and although following a downward trend more recently, it has nevertheless averaged around 19% during 2001-09. In Morocco, Egypt and Tunisia, unemployment rates have remained in double digits ranging between 10%-15% in the past decade.

Official unemployment data are widely believed to underestimate real unemployment in the region. Moreover, a significant portion of those 'employed' fall into the 'vulnerable employment' category (unpaid family workers and own-account workers). This category of employment lacks the formality that goes with wage and salaried jobs and consists of many informal occupations. For the MENA region as a whole, over one-

third of all those employed can be considered as being 'vulnerable' in this sense. Given the precarious nature of some of these jobs, they can pose an additional threat to unemployment figures. In North Africa, the share is particularly high in Morocco, where it reaches over half of all employment. As we saw previously (Table 8) this in reflects a high proportion of self-employment (including contributing family workers) in Morocco combined with a relatively low share of those with wage and salaried employment.

Although patchy, data in Table 9 show another important feature of MENA's unemployment: those with tertiary education feature prominently among the unemployed. Worldwide, this ratio is highest in South Asia where a staggering one-third of all unemployed are tertiary sector graduates. In North Africa, this ratio is highest for Morocco (accounting for one-fifth of total unemployment) followed by Algeria and Tunisia (with ratios around 10%).

Another well-known and marked feature of unemployment in the region is very high youth unemployment rates both among male and females (ILO, 2013: 85-6; AfDB, 2012: 25-29). Despite the region's improved growth experience in the last decade, it appears that MENA's Achilles heel has been its inability to translate such growth into productive jobs especially for its young population (see also Dhillon, 2009, and Radwan, 2006 on MENA youth unemployment). As we have already seen, MENA's population is generally very young. The working-age youth (those between 15 and 29 years of age) account for about one-quarter to one-third of the total population across countries in the region.

Unfortunately, the youth bulge in the region suffers unemployment rates that are well above the national average rates, which is already high by world standards, as we saw earlier. Figure 1 shows that the youth unemployment rate in 2010 was at least twice as high as the overall national average rates in most Arab countries for which recent data is available. In Iraq and the West Bank official youth unemployment rates exceeded 40%, followed by Saudi Arabia (30%). In North Africa, these ratios vary between 18%-29%. Overall, Figure 1 shows that in Arab countries, somewhere between two and four out of ten people aged 15-24 are unemployed.

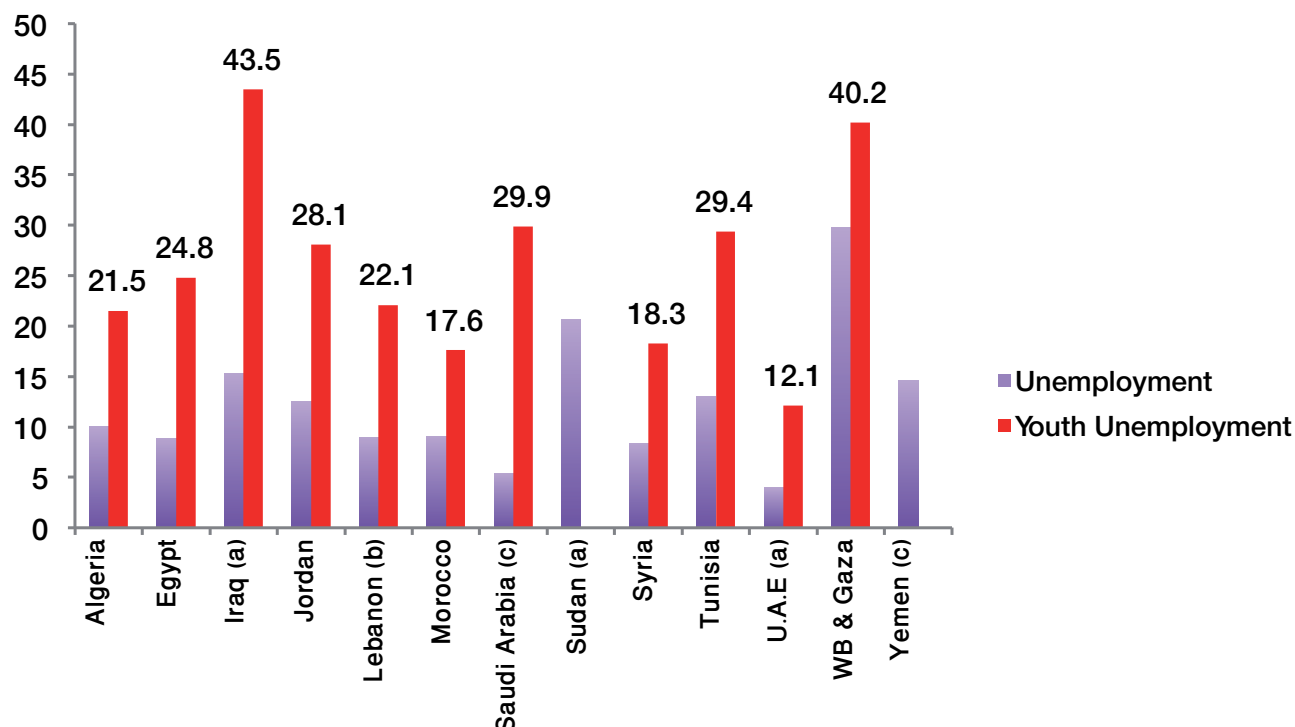
Table 9: Unemployment in North Africa & Other Regions, 1991-2009

| | Unemployment Rate, Total (% of total labour force) | | | | | Unemployment with Tertiary Education (% of total unem- ployment) | | | | | Vulnerable Employment ^(a) (% of total employment) | | | | |
|--------------------------------------|---|---------------|---------------|---------------|---------------|--|---------------|---------------|---------------|---------------|---|---------------|---------------|---------------|---------------|
| | 1991- 1995 | 1996- 2000 | 2001- 2005 | 2006- 2009 | 2001- 2009 | 1991- 1995 | 1996- 2000 | 2001- 2005 | 2006- 2009 | 2001- 2009 | 1991- 1995 | 1996- 2000 | 2001- 2005 | 2006- 2009 | 2001- 2009 |
| Algeria | 23.8 | 27.6 | 22.5 | 12.5 | 18.7 | 10.8 | | 10.0 | | 10.0 | | | 31.6 | | 31.6 |
| Egypt | 10.4 | 8.5 | 10.4 | 9.4 | 9.9 | | | | | | 27.0 | 23.7 | 23.8 | 26.1 | 24.4 |
| Libya | | | | | | | | | | | | | | | |
| Morocco | 18.0 | 16.3 | 11.6 | 9.8 | 10.8 | 11.9 | 17.9 | 20.2 | | 20.2 | 47.5 | 47.0 | 51.6 | 51.4 | 51.5 |
| Tunisia | | 15.9 | 14.6 | 14.2 | 14.5 | 1.7 | 4.9 | 9.2 | | 9.2 | 20.9 | | | | |
| Arab World | | | 14.9 | 10.9 | 12.2 | | | | | | | | | | |
| East Asia & Pacific | 2.8 | 3.6 | 4.7 | 4.7 | 4.7 | | | | | | | | | | |
| Latin America & Caribbean | 7.2 | 8.6 | 8.9 | 7.3 | 8.2 | | | 11.8 | 12.3 | 11.9 | | 32.7 | | 30.3 | 30.3 |
| MENA | 12.6 | | 13.0 | 10.5 | 11.7 | | | | | | | | | 36.7 | 36.7 |
| South Asia | 3.3 | 3.4 | 4.6 | | 4.6 | 26.1 | 28.0 | 31.1 | - | 31.1 | | | | | |
| Sub-Saharan Africa | | | | | | | | | | | | | | | |
| World | 5.3 | 5.4 | 6.4 | | 6.4 | | | | | | | | | | |

Note: (a) Vulnerable Employment is unpaid family workers and own-account workers as a percentage of total employment.

Source: Calculations from WDI (2012).

**Figure 1: Total Unemployment and Youth Unemployment Rates* (%)
 Selected Arab Countries (2010)**



Notes: * Youth unemployment refers to those aged 15-24 years;
 (a)-2008; (b)-2007; (c)-2009
 Source: ILO (2011).

Given the absolute size of the youth bulge, it is not surprising that the youth make up a significant bulk of the total unemployment figures. According to the ILO, young people accounted for as high as 63% of all unemployed in Egypt in 2007. The same ratio was two-fifth in Morocco in 2009 (KILM, 2009). Overall, ILO estimates put male youth unemployment rate in 2012 at more than three times the male adult unemployment rate in the region (18.5% against 5.7%) with a similar rate of 37% for female youth unemployment - or 'more than six times the rate for adult men' (ILO, 2013: 85).

Our discussion on North African countries' ability to generate jobs has so far concentrated on three common indicators: unemployment rates, labour force participation rates and employment-to-population ratios.

While these are useful indicators, we can also gain further insight into the dynamics of employment creation and its relationship to economic growth by examining employment elasticities (Kapsos, 2005; see Saget, 2000 for a discussion of the relationship between growth and employment in general). This concept indicates the employment intensity of growth or net new job creation for each 1% growth in GDP and can help us analyse the extent to which growth may be attributed to gains either in labour productivity or in increases in labour supplies. An early study for the period 1991-2003 found that MENA and Sub-Saharan Africa had the highest of all regions' overall employment elasticities indicating that employment growth was in the main driven by rising labour supplies in these two regions rather than by gains in productivity (Kapsos, 2005: 19).

Table 10: Employment Elasticities in North Africa, 1992-2008

| | Total | | | | Male | | | | Female | | | |
|----------------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|
| | 1992-1995 | 1996-2000 | 2000- 2004 | 2004-2008 | 1992-1995 | 1996-2000 | 2000- 2004 | 2004-2008 | 1992-1995 | 1996-2000 | 2000- 2004 | 2004-2008 |
| Algeria | 0.87 | 1.01 | 1.29 | 1.53 | 1.45 | 1.69 | 1.63 | 2.18 | 0.68 | 0.76 | 1.15 | 1.24 |
| Egypt | 0.67 | 0.48 | 0.82 | 0.57 | 0.66 | 0.66 | 1.30 | 0.87 | 0.67 | 0.44 | 0.69 | 0.49 |
| Libya | -0.82 | 2.00 | 0.49 | 0.38 | -1.51 | 3.49 | 0.66 | 0.62 | -0.68 | 1.62 | 0.44 | 0.32 |
| Morocco | 0.54 | 0.56 | 0.50 | 0.48 | 0.89 | 1.00 | 0.50 | 0.31 | 0.43 | 0.41 | 0.50 | 0.43 |
| Tunisia | 0.79 | 0.40 | 0.55 | 0.42 | 1.30 | 0.61 | 0.89 | 0.46 | 0.64 | 0.34 | 0.43 | 0.40 |

Source: KILM (2009).

ILO's computations for individual countries in North Africa are summarised in Table 10 for the period 1992-2008 disaggregated by gender into four-yearly sub-periods (KILM, 2009). It can be seen that Algeria has consistently had high overall and gender-specific employment elasticities with an upward trend in recent years. As we have seen above, this is mainly a reflection of demographic trends such as high fertility rates in the past (Table 3) translated into high labour force growth rates (Table 5) and high volumes of female labour force entrants (Table 6). In Libya, following a marked rise in the late 1990s, employment elasticities have been declining noticeably, and in Egypt, Tunisia and Morocco, a moderate downward trend has become the norm in recent years.

Evidence also suggests that economic growth has favoured job creation for males compared to females. The only exception is Morocco, where in recent years female employment elasticity has overtaken male employment elasticity (0.43 against 0.31 in 2004-08), again perhaps an indication of the large numbers of family workers in this country (see Table 8 above).

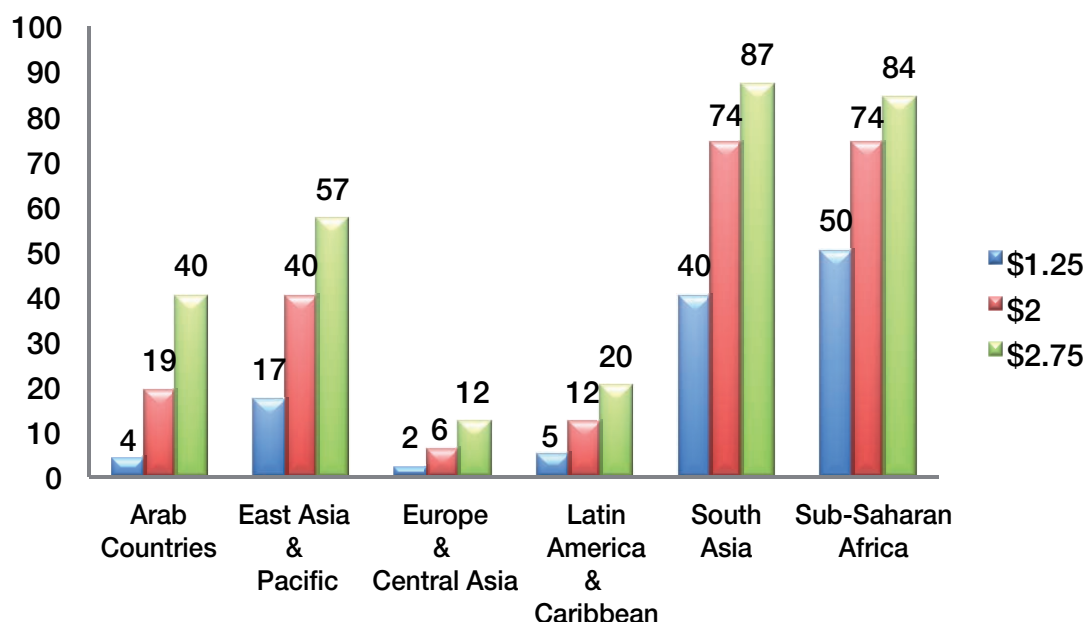
With low women's labour force participation rates in the region (see Table 6 above), it is possible that we will see higher female elasticities in the future given the scope for catching up with males in this regard.

4.4 Poverty and Inequality

Judged by international standards, MENA's income-based poverty rates appear to be surprisingly low (Bibi and Nabli, 2009; Adams and Page, 2003; Bargawi and McKinley, 2011). If adopting narrowly defined poverty reduction targets, therefore, pro-poor growth strategies risk missing out on large numbers of low income people who fall just above fixed international poverty thresholds. While this raises some questions about the choice of suitable thresholds for defining poverty headcount ratios, doubts also arise about the quality and accuracy of poverty data, and hence their applicability, in the region.

Figure 2 shows this apparent paradox: those living on less than \$1.25 a day (in 2005 PPP US\$) add up to only 4% of the total population in the Arab region. This appears to conform to headcount ratios for much richer regions such as Latin America (5%) and is far below that for other developing regions such as South Asia (40%) and Sub-Saharan Africa (50%). Although raising the benchmark to \$2 a day or \$2.75 a day does make a significant and disproportionate difference in the Arab countries (more so than anywhere else), the overall poverty picture, judged by fixed international poverty lines, still seems comparatively favourable in the region (19% live below \$2 a day and 40% below \$2.75 a day).

Figure 2: Regional Poverty Headcount Ratios at \$1.25, \$2 and \$2.75 a Day (in 2005 PPP Dollars, % of Population)



Source: UNDP (2012: 22).

Although limited, data for North African countries presented in Table 11 confirms this overall picture. Two patterns can be seen: in Tunisia and Morocco, where poverty ratios were above the regional norms (but still low by international standards), there has been a marked downward

trend (falling from 6.5%-6.8% to around 2.5% for the lower benchmark of \$1.25 a day). In Egypt, a similar benchmark ratio has been very low but broadly stable or rising moderately (around 1.8%-2% between 2000 and 2005).

Table 11: Poverty Headcount Ratios at \$1.25 and \$2 a Day in North Africa

| | Survey Period | Population (%) below \$1.25 a day | | Population (%) below \$2 a day | |
|---------|---------------|-----------------------------------|----------------------|--------------------------------|---------------|
| | | Earliest Survey | Latest Survey Period | Earliest Survey | Latest Survey |
| Algeria | 1995 | 6.8 | | 23.6 | |
| Egypt | 2000-2005 | 1.8 | 2.0 | 19.3 | 18.4 |
| Morocco | 1998-2007 | 6.8 | 2.5 | 24.4 | 14.0 |
| Tunisia | 1995-2000 | 6.5 | 2.6 | 20.4 | 12.8 |

Source: KILM (2009).

Raising the benchmark to \$2/day, however, does make a considerable difference even though a similar pattern follows. For instance, Morocco has seen the sharpest fall in the incidence of poverty thus defined (from 24.4% to 14%) followed by Tunisia (falling from 20.4% to 12.8%) and

Egypt where the reduction has been much more modest (down from 19.3% to 18.4%). At face value, thus Morocco and Tunisia's poverty incidence is now on par with that of the Latin American region (around 12%) and far above that for other parts of the world (for instance East

Asia at 40% and South Asia and the Sub-Saharan Africa both at 74%; see Figure 2).

Although it appears that MENA poverty headcount ratios are highly sensitive to the choice of the benchmark, there are good reasons to ask whether fixed international poverty lines can indeed be appropriate guides for estimating the real incidence of poverty in the region. As stated above, doubts have persisted about the estimation and application of poverty data in the MENA region as a whole. Some have questioned whether income-based measurements of poverty (such as headcount ratios and the Gini coefficient) result in optimistic measures for improving the conditions of poor in MENA. Breisinger et al, for instance, find that MENA's reduction in income-based poverty measures are out of line with the worldwide average, 'while reduction rates in child under-nutrition are similar' (2012: 9). They attribute these discrepancies partly to data inaccuracies and partly to the importance of non-income factors (such as health and education) that may be relatively less developed in the region and are missed out in poverty measures that are reliant on income alone.

Others have questioned the methodology used by international poverty estimates in the MENA context. For instance, the application of universal PPPs may not be representative of relative price levels faced by very

poor consumers, leading to distorted comparisons of poverty or deprivation across countries in the MENA region (Sabry, 2010, argues that household expenditure surveys indicate a much worse poverty situation in Egypt). Based on an alternative methodology which takes into account per capita consumption expenditures, UNDP re-estimates new poverty lines dismissing the \$1.25/day benchmark as being far too low and favouring the \$2.00/day line as 'a more appropriate benchmark' for global poverty measurement (2011: 24).

Similar misgivings are also encountered in relation to the empirical evidence on inequality in MENA, where, Gini coefficients estimated from household expenditure surveys seem to indicate moderate levels of inequality by international standards. In general, it is believed that these surveys miss out on the top 5% income groups, hence indicating stagnant or falling per capita consumption as opposed to results based on national accounts (UNDP, 2011: 26-7).

Table 12 summarises available evidence on inequality in North Africa. Based on evidence offered by the Gini index, Egypt saw a reduction in its inequality, whereas in Tunisia the trend was almost stagnant. Despite sharp poverty reduction in Morocco seen above, the Gini index indicates that inequality in fact worsened between 1999 and 2007 (rising from 39.5 to 40.9).

Table 12: Indicators of Income Distribution

| | Survey Period | Earliest Survey | | Latest Survey | |
|----------------|---------------|--------------------------------|------------|--------------------------------|------------|
| | | Ratio of top 20% To Bottom 20% | Gini Index | Ratio of top 20% To Bottom 20% | Gini Index |
| Algeria | 1995 | 3.9 | 35.3 | | |
| Egypt | 2000-2008 | 3.2 | 32.8 | 2.9 | 30.8 |
| Morocco | 1999-2007 | 4.8 | 39.5 | 5.1 | 40.9 |
| Tunisia | 1995-2005 | 5.6 | 41.7 | 5.5 | 41.4 |

Source: Calculations from WDI (2012).

An examination of income concentration at the top and bottom ends of income offers a similar picture. In Egypt, the ratio of income for the top 20% to the bottom 20% declined (from 3.2 to 2.9 in the period 2000-2008) and in Tunisia it remained stable (around 5.5 between 1995 and 2005). Again, Morocco stands out in this respect with an income concentration in favour of the top income group.

In the next section, we turn to an examination of access to social goods and amenities in the region to get a better understanding of growth and its implications for welfare and poverty in the years under consideration.

4.5 Social Goods and Services

4.5.1 Health

As we saw above (Tables 3 and 4), in recent years the region's demographic transition has been marked by improvements in life expectancy combined with a sustained fall in infant mortality rates. Table 13 provides other selected health indicators for which comparative data are available. It can be seen that in the last decade, maternal mortality ratios in the MENA region as a whole have fallen steeply reaching levels

that are now comparable to those of East Asia and Latin America (down from 200 per 100,000 live births in 2000 to 74 per 100,000 live births in 2009). Among North African countries, Libya and Algeria have lagged behind even though their decline has been equally emphatic (from 220-

300 to around 100 per 100,000 live births in the same period). By contrast, in Tunisia, Morocco and Egypt these rates are now down to around 60 per 100,000 live births, which is well below those both for the Arab world and other regions.

Table 13: Selected Health Indicators in North Africa & Other Regions (2000-09)

| | Maternal Mortality Ratio (per 100,000 live births) | | | Incidence of Tuberculosis (per 100,000 people) | | |
|---------------------------|---|------|------|---|------|------|
| | 2000 | 2005 | 2009 | 2000 | 2005 | 2009 |
| Algeria | 220 | 140 | 97 | 66 | 87 | 90 |
| Egypt | 230 | 100 | 66 | 34 | 26 | 18 |
| Libya | 300 | 170 | 100 | 40 | 40 | 40 |
| Morocco | 99 | 67 | 58 | 147 | 109 | 91 |
| Tunisia | 130 | 84 | 56 | 29 | 24 | 25 |
| Arab World | 360 | 290 | 230 | | | |
| East Asia & Pacific | 210 | 120 | 78 | 167 | 136 | 114 |
| Latin America & Caribbean | 140 | 100 | 80 | 88 | 61 | 43 |
| MENA | 200 | 120 | 74 | 56 | 50 | 38 |
| South Asia | 620 | 410 | 220 | 215 | 215 | 192 |
| Sub-Saharan Africa | 850 | 740 | 500 | 210 | 276 | 271 |
| World | 400 | 320 | 210 | 144 | 141 | 128 |

Source: Calculations from WDI (2012).

The same table also shows that the incidence of tuberculosis in MENA has been low by world standards and broadly declining (by 2009 such cases were on average affecting 38 per 100,000 people in MENA, down from 56 per 100,000 a decade earlier). Within North Africa, we see a dual pattern where the rates in Morocco and Algeria are the highest (around 90 per 100,000), while Tunisia and Egypt have the lowest rates and Libya's rates conform to the MENA's average at around 40 per 100,000.

Table 14 provides data on health expenditures and the share of the public sector in such expenditures. We can see that the share of total (public and private) health expenditure in MENA's GDP over the last decade has been generally low at around 4%-5%, which is about half of the world average (which includes developed countries). This ratio falls between that for East Asia and Latin America on one hand (7%) and South Asia on the other (4%). Among North African countries, high relative shares are seen in Tunisia (6.2%) with much lower shares in Libya and Algeria (around 4%).

Table 14: Expenditure on Health in North Africa & Other Regions (2000-2009)

| | Total Health Expenditure (% GDP) | | | General Gov. Expenditure on Health (% General Gov. Expenditure) | | | General Gov. Expenditure on Health (% Total Expenditure on Health) | | |
|---------------------------|----------------------------------|------|------|---|-------|------|--|------|------|
| | 2000 | 2005 | 2010 | 2000 | 2005 | 2010 | 2000 | 2005 | 2010 |
| Algeria | 3.5 | 3.4 | 4.2 | 8.9 | 9.9 | 9.2 | 73.3 | 75.8 | 77.9 |
| Egypt | 5.4 | 5.2 | 4.7 | 7.3 | 6.7 | 5.7 | 40.5 | 40.6 | 37.4 |
| Libya | 3.3 | 2.5 | 3.9 | 6.0 | 5.5 | 5.5 | 57.2 | 61.8 | 68.8 |
| Morocco | 4.2 | 5.1 | 5.2 | 4.0 | 6.6 | 6.6 | 29.4 | 28.7 | 38.0 |
| Tunisia | 6.0 | 6.2 | 6.2 | 8.1 | 10.7 | 10.7 | 54.9 | 51.5 | 54.3 |
| Arab World | 4.2 | 3.8 | 4.7 | | | | 57.2 | 60.8 | 60.9 |
| East Asia & Pacific | 6.6 | 6.7 | 6.9 | | | | 72.4 | 67.8 | 69.5 |
| Latin America & Caribbean | 6.6 | 6.9 | 7.7 | 9.8 | | | 48.9 | 47.2 | 50.2 |
| MENA | 4.7 | 4.4 | 5.1 | | | | 54.2 | 58.3 | 57.8 |
| South Asia | 4.3 | 3.9 | 3.9 | 3.8 | 3.5 | 3.5 | 28.1 | 24.4 | 30.0 |
| Sub-Saharan Africa | 6.0 | 6.6 | 6.5 | | 10.00 | | 40.0 | 39.3 | 45.3 |
| World | 9.2 | 9.9 | 10.4 | | | | 57.8 | 58.6 | 62.8 |

Source: WDI (2012).

A regional comparison of the relative importance of government spending on health (judged by its share in total government budget) is not possible due to lack of data, but in Algeria and Tunisia state spending on health seems to constitute a much higher share of total public spending than elsewhere (around 9-10% of general government expenditure respectively).

The relative importance of the public sector in the provision of health services is seen much more clearly from the composition of the total health expenditures. The share of public sector in MENA's total health spending (private and public) has been edging up to reach around 58%-60% in 2010 (in comparative terms, it is only below East Asia's at 70%). A closer look at the North African region, however, shows a dual pattern. In the two oil economies of Algeria and Libya public health spending exceeds private spending and its share has been rising (reaching about two-thirds to three-quarters of total health spending). In Egypt and Morocco, however, the opposite is the case with private health spending exceeding public health spending. In

Tunisia the split is approximately even and has stayed broadly stable at around 54% in the past decade.

4.5.2 Education

Table 15 shows that gender parity in both secondary and tertiary education in the Arab world and the MENA region as a whole has been improving steadily in the past decade. This trend has been even more marked in the tertiary sector with the ratio of female to male enrolments in MENA jumping by almost a quarter in less than ten years to reach parity (up from 83% to 100.7%) and near parity in the Arab countries (up from 80% to 96.3%).

The picture in North Africa is patchy but for the two countries for which data is available – Tunisia and Morocco – the same picture is observed: in Tunisia both in secondary and tertiary sectors females have overtaken males in education reflecting the trend seen in other regions such as in East Asia and Latin America.

Table 15: Ratio of Female to Male Enrolment in Secondary and Tertiary Education in North Africa & Other Regions (2000 and 2009)

| | Ratio of Female to Male Enrolment (%) | | | |
|---------------------------|---------------------------------------|-------|-------|-------|
| | 2000 | 2009 | 2000 | 2009 |
| Algeria | | 101.8 | | 144.2 |
| Egypt | 92.2 | | | |
| Libya | | | 97.1 | |
| Morocco | 79.3 | | 72.3 | 87.1 |
| Tunisia | 103.4 | 105.8 | | 150.5 |
| Arab World | 88.7 | 91.4 | 80.1 | 96.3 |
| East Asia & Pacific | 95.6 | 104.7 | 84.4 | 104.0 |
| Latin America & Caribbean | 106.8 | 108.1 | 118.5 | 126.0 |
| MENA | 90.1 | 92.7 | 82.6 | 100.7 |
| South Asia | 74.2 | 88.4 | 64.2 | |
| Sub-Saharan Africa | 81.0 | 79.2 | 65.2 | 63.3 |
| World | 91.6 | 96.6 | 99.1 | 108.2 |

Source: Calculated from WDI (2012).

Table 16: Public Expenditure on Education in North Africa (1998-2009)

| | Public Expenditure on Education (% of GDP) | | | Public Expenditure on Education (% of Total Government Expenditure) | | | Public Expenditure per Pupil (% of GDP per capita) | | |
|---------|--|-----------|-----------|---|-----------|-----------|--|-----------|-----------|
| | 1998-2001 | 2002-2005 | 2006-2009 | 1998-2001 | 2002-2005 | 2006-2009 | 1998-2001 | 2002-2005 | 2006-2009 |
| Algeria | | | 4.3 | | | 20.3 | | | |
| Egypt | | 4.8 | 3.8 | | 15.9 | 12.2 | | 18.1 | |
| Libya | 2.7 | | | | | | | | |
| Morocco | 5.5 | 5.7 | 5.5 | 25.1 | 27.1 | 25.9 | 25.7 | 24.6 | 24.1 |
| Tunisia | 6.2 | 6.4 | 6.4 | 17.8 | 19.9 | 22.2 | 21.4 | 22.5 | 23.5 |

Source: UNESCO (2012).

While an encouraging trend, the rising trend for female participation in tertiary education, however, should be seen against a background of generally limited opportunities for women in social and economic spheres. As we saw earlier, women's labour force participation rates in North Africa are among the lowest in the world: female workers make up only about a quarter of the workforce in the region, whereas the norm elsewhere is over 40% (Table 6). Women also have fewer opportunities for studying abroad and are generally also over-

represented among the unemployed. As we have argued before, should improvements in education and skills for female workers boost their LFPRs in due course, this can only increase the supply of women in the labour market and exacerbate the region's unemployment challenge.

Table 16 shows that public expenditure on education as a proportion of GDP in North Africa has been generally steady around 3%-6%

between 1998 and 2009. Tunisia tops the list with its share around 6%, whereas Libya comes at the bottom end with a share of less than 3% during 1998-2001 (data for more recent years is not available).

The importance of public provision is also seen from the fact that educational expenditure amounts to around one-fifth of the total government budget with the exception of Egypt, where the budgetary share of expenditure has been low and declining (from around 16% to 12% between 2002 and 2009). Normalising for the number of the pupils, public expenditure on education per pupil in Morocco and Tunisia has been around a quarter of GDP per capita.

4.5.3 Urban Amenities

With large numbers of population and jobs concentrated in urban centres, access to civic amenities and hygiene standards are important aspects of living standards for millions of urban inhabitants during the process of transformation and structural change. Table 17 shows that with the urban proportion continually rising in the last two decades, urban populations now exceed the numbers residing in rural areas in North African countries. The only exception is Egypt where the ratio is at 43%. In general, the proportion of town inhabitants is around two-thirds of the total (in Libya it is the highest at around 78% and in Morocco around 57%).

Table 17: Urban Population Living in Slums in North African Countries (1990-2009)

| | Population in Urban Areas (% Total Population) | | | | Population Living in Slums (% Urban Population) | | | | Population Living in Slums (‘000s) | | | |
|---------|---|------|------|------|--|------|------|------|---------------------------------------|-------|-------|-------|
| | 1990 | 2000 | 2005 | 2009 | 1990 | 2000 | 2005 | 2007 | 1990 | 2000 | 2005 | 2007 |
| Algeria | 52.1 | 59.8 | 63.3 | 66.5 | 11.8 | | | | 1.507 | | | |
| Egypt | 43.5 | 42.6 | 42.6 | 42.8 | 50.2 | 28.1 | 17.1 | 14.4 | 12.029 | 7.978 | 5.312 | 5.505 |
| Libya | 75.7 | 76.4 | 77 | 77.9 | 35.2 | | | | 1.242 | | | |
| Morocco | 48.4 | 53.3 | 55 | 56.7 | 37.4 | 24.2 | 13.1 | 13.1 | 4.490 | 3.713 | 2.196 | 2.276 |
| Tunisia | 57.9 | 63.4 | 65.3 | 67.3 | 9 | | | | 425 | | | |

Source: Calculated from WDI (2012) and MDG Goals Indicators (2012).

Accompanying urbanisation, there has also been a marked decline in the number and proportion of those living in urban slums. In Egypt and Morocco, the only two countries for which data is available, there have

been significant reductions both in the absolute numbers and the proportion of slum dwellers since 1990. This has been combined with general improvements in water and sanitation standards (Table 18).

Table 18: Water and Sanitation in North Africa (1990-2008)

| | Population Using Improved Drinking-Water Sources (%) | | | | | Population Using Improved Sanitation Facilities (%) | | | | |
|---------|---|------|------|------|------|--|------|------|------|------|
| | 1990 | 1995 | 2000 | 2005 | 2008 | 1990 | 1995 | 2000 | 2005 | 2008 |
| Algeria | 94 | 93 | 89 | 85 | 83 | 88 | 90 | 92 | 94 | 95 |
| Egypt | 90 | 93 | 96 | 98 | 99 | 72 | 79 | 86 | 93 | 94 |
| Libya | 54 | 54 | 54 | | | 97 | 97 | 97 | 97 | 97 |
| Morocco | 74 | 76 | 78 | 80 | 81 | 53 | 59 | 64 | 68 | 69 |
| Tunisia | 81 | 86 | 90 | 94 | 94 | 74 | 78 | 81 | 85 | 85 |

Source: WHO (2012).

To summarise this section, we have seen that overall North African countries have fared relatively better recently both in historical terms and compared to other regions. They have enjoyed respectable average annual real GDP growth rates of 4%-5% during the period 2000-10. Moreover, the same decade witnessed many other encouraging advances in other aspects: life expectancy rose, educational and health indicators improved, the number and proportion of slum dwellers declined and more people enjoyed civic

amenities such as access to improved drinking water and sanitation. Judged by international poverty benchmarks, even poverty and inequality data seem to offer a more favourable picture of the region's experience in these years. The demographic experience of the region, however, was its main challenge with some of the highest national and youth unemployment rates and the lowest female participation in the workforce, there is much that the countries in the region need to do to enhance their prospects for achieving inclusive growth.

5. Measuring Inclusive Growth in North Africa

This section draws from the various development indicators discussed above to arrive at an estimation of a combined single measure of inclusive growth for the North African countries under discussion. This will then be used to compare their performance both over time and in relation to a selection of other peer countries.

As mentioned above, the choice of a single measure or indicator for inclusive growth is still in early stages. For instance, McKinley (2010) has proposed using a weighted scoring system that embraces a number of key growth statistics and a broad set of development indicators. But even if focusing on economic outcomes alone, there remains the problem of agreeing what elements to include and what weights to adopt when constructing a universal ‘inclusive growth’ index.

The UNDP’s annual ranking of countries based on their estimated Human Development Indicators (HDI) can be taken as a readymade – albeit limited – measure of such an indicator. Introduced in 1990, the HDI provides an alternative to conventional measures of national development, such as the level of income and the rate of economic growth. HDIs offer a broader definition of well-being and provide a composite measure based on three basic dimensions of human development: income, life expectancy and education. These are given equal weightings and the resulting combined score is used for ranking countries according to their performance annually. Since 2010, UNDP has also offered an inequality-adjusted score (IHDI) to capture the effect of inequality on these scores and hence on country rankings. These two measures would in fact be the same if there were no inequality and in that sense the ‘IHDI is the actual level of human development (taking into account inequality), while the HDI can be viewed as an index of the potential human

development that could be achieved if there is no inequality’ (UNDP, 2012a).

Table 19 gives the HDI and IHDI rankings for the five North African countries out of 187 countries in total for the former and 134 countries for the latter in 2011. Also given are the rankings for the sub-components of income, health, education, inequality and gender. We have also provided the normalised rankings for HDI and IHDI to take into account the variable number of countries for which these rankings are possible.

A number of interesting issues emerge here. First, for these five countries rankings based on income alone are generally a good proxy for their overall HDI rankings since it appears as if the inclusion of the other two indicators (health and education) only makes a marginal difference to their overall HDI rankings. The only exception is Morocco where a severe underperformance in education leads to a significant divergence between its income rankings and overall HDI.

Second, normalised HDI rankings indicate that Egypt and Morocco are in the bottom median of all country rankings (approximately 40% and 31% respectively), whereas Tunisia and Algeria rank at the median level (around 50%). Somewhat surprisingly perhaps, Libya’s HDI comes on top, situated in the top one-third of all country rankings (66%).

Third, gender rankings help Tunisia – with a rank of 45 out of 134 countries (significantly above its overall HDI or any other indicators). Normalised gender rankings (not reproduced in the table) indicate stable rankings for Algeria, Morocco and Tunisia (data for Egypt is missing).

Table 19: Human Development Rankings by Various Components, North African Countries, 2011

| | Income | Health | Education | Inequality | Gender | Overall HDI | | Inequality-Adjusted HDI | |
|------------------------|--------------|------------|------------|------------|------------|-------------|----------------------------------|-------------------------|----------------------------------|
| | | | | | | Rank | Normalised rank (max=100; min=0) | Rank | Normalised rank (max=100; min=0) |
| Algeria | 91 | 93 | 107 | | 71 | 96 | 48.9 | | |
| Egypt | 107 | 92 | 129 | 78 | - | 113 | 39.8 | 80 | 40.6 |
| Libya | 64 | 65 | 69 | | 51 | 64 | 66.1 | | |
| Morocco | 115 | 108 | 147 | 95 | 104 | 130 | 30.6 | 91 | 32.3 |
| Tunisia | 96 | 70 | 110 | 81 | 45 | 94 | 50.0 | 66 | 51.1 |
| Total countries | 81871 | 188 | 188 | 134 | 146 | 187 | 100 | 134 | 100 |

Source: Ranks data from UNDP (2012b). Normalised ranks are author's calculations based on the equation (2) explained in the text below.

Fourth and last, normalised Inequality-adjusted HDIs in the same table indicate a slight rise in the rankings of Egypt, Morocco and Tunisia, the three countries for which such data is available. This shows that taking into account inequality in the region in fact makes a modest positive effect on their overall rankings.

While useful, UNDP's HDIs only encompass a limited number of indicators we covered in Section 4 above. To get a more holistic indication of the nature of inclusive growth, in the rest of this section we attempt to widen the range of economic and social indicators to re-estimate the relative performance of each of the North African countries in relation to others and over time. This is done by taking into account the country rankings obtained for a range of indicators specified below and constructing a normalised score (between 0 and 100) for each country. To smooth out annual fluctuations in individual ranks, we use three year averages first for the first three years (2000-02) and then the last three years of the decade (2008-10). This is repeated for all indicators (see a list below) with the exception of the inequality indicator for which, due to data limitations, we use an average of the Gini values available for the periods 2000-04 and 2005-10, respectively. Obviously, the period is of special interest given its proximity to the events leading to the Arab uprisings in many countries of the region.

The overall inclusive scores for each country (IG_i) are computed as a geometric mean for that country of the standardised values for

different indicators (defined below) according to the following formula:

$$IG_i = \sqrt[n]{s_{1i} \cdot s_{2i} \dots s_{ji}} \quad (1)$$

where:

(*i* = 1, ... *m*: country *i* included in the dataset);

(*j* = 1, ... *n*: indicator *j* included in the dataset); and

s_{ji} is a standardised score for the rankings obtained in respect of indicator *j* for country *i*. Standardised scores are obtained using the following formula (for each indicator for each country):

$$s_{ji} = 100 \cdot \left(\frac{m_j - r_j}{m_j - 1} \right)_i \quad (2)$$

where *r_j* is a country's rank in respect of indicator *j* in (descending order) and *m_j* is the total number of countries for which data for indicator *s_j* is available. This takes into account the variable number of countries for which data is available for specific indicators. In general, due to data limitations, the number of the countries declines for variables such as inequality and the structure of employment (percentage of the wage and salaried in total employment) – a factor that is arguably biased against less developed countries (see detailed data and methodology in Appendix Tables 1 and 2).

Table 20: Indicators Used for Computation of Inclusive Growth Index

| Broad Categories | Specific Indicators (S_j) | No of countries in the Dataset (m_j) |
|-----------------------------|---|--|
| Growth | 1. Real GDP Growth | 194 |
| | 2. Real per capita GDP Growth | 194 |
| Health and Demographics | 3. Public Health Expenditure (% GDP) | 187 |
| | 4. Mortality Rate Under-5 (per 1,000) | 193 |
| | 5. Life Expectancy at Birth | 196 |
| | 6. Tuberculosis (per 100,000 people) | 202 |
| Labour Force and Employment | 7. Wage & Salaried (% of total employment) | 92 |
| | 8. Employment-to-Population Ratios (% of 15+) | 173 |
| Gender | 9. Female Labour Force (% of total workforce) | 184 |
| Education | 10. Ratio of Female to Male Secondary Enrolment (%) | 163 |
| Sanitation | 11. Population Using Improved Sanitation Facilities (%) | 178 |
| Inequality | 12. Gini Index | 99 |
| Governance | 13. Corruption Perception Index | 179 |

Standardised scores obtained from equation (2) take a maximum value of 100 (for the highest ranked) and 0 (for the lowest ranked) for each country for each indicator. A list of a total of thirteen indicators used is given in Table 20 grouped under their broad categories (growth, health and demographics, etc). All indicators are given equal weights ($1/n$) when computing the overall inclusive growth index (IGi) in equation 1. All data are taken from the World Bank (WDI, 2012) with the exception of Governance, for which we use the Corruption Perception Index (CPI) provided by Transparency International (2012).

Table 21 provides a summary of estimated values for the 'Inclusive growth Index' (IGi as in equation 1 above) for the five North African countries for the periods 2000-02 and 2008-10 and compares them with similar data computed for a select number of Middle Eastern countries and other LDC peers. A number of interesting patterns emerge.

First, all five North African countries underperform internationally considering that they appear in the bottom median of all countries (lowest score is 0 and highest 100). In comparative terms though, Tunisia does best followed by Egypt. Algeria appears at the bottom of the pecking order followed by Morocco and Libya (in that order for 2008-10).

Second, the trend over the decade seems to have improved for all these five countries though to varying extents. Libya and Algeria do

best (in that order) followed by Egypt. Morocco and especially Tunisia and show a more modest improvement. Our results – based on a wider set of development indicators seem to diverge from the HDIs and do not seem to provide a ready explanation for the political turmoil and uprisings encountered in the region (especially Egypt, Tunisia and Libya). Whilst important, thus, the economic origins of the 'Arab Spring' must be understood alongside its political roots to shed light on complex processes that saw power swept from under the feet of the region's authoritarian regimes (AfDB, 2012: 25).

More insight can be obtained by further interrogating the data for other Middle East and developing countries. First within the Middle East region, Iran and especially Syria follow a deteriorating trajectory in this period (with a decline of 13.1% and 19.4%, respectively). This is in contrast with all other countries where a strong trend of improvement is observed: Yemen by as much as almost 30%; Lebanon by 25% and Turkey and Israel by about 15%.

Among other LDCs a number of interesting results emerge. Of BRICS, China, Brazil and India indicate an improvement. This is in sharp contrast to Russia and South Africa, where a significant deterioration is observed (20%-30%). Another strong performer is Indonesia followed, to a lesser extent, by Chile. This is in contrast to South Korea and Malaysia where a modest deterioration is indicated by these data.

Figure 3 takes the analysis for North African countries one step further by conducting sensitivity analysis for the 13 indicators used for the construction and estimation of the IG index both for 2000-02 and 2008-10. In this figure, a baseline of 100% indicates no change and each data point shows the re-estimated IG if a particular indicator were to be excluded from the calculations (given a weight of zero). Figures above 100% (baseline) indicate the indicator has a negative effect on the overall index and hence its elimination (as shown in these figures) will improve the index. The opposite is true of the figures below 100% (i.e., they have an overall positive effect on the IG index and their elimination lowers the IG score).

It can be seen that the employment indicators (both employment-to-population ratio and female workforce as a % of total labour force) have the largest impact in all five countries. This is especially true of Algeria (particularly in 2000-02) as well as in Tunisia. Ironically perhaps, the inclusion of the inequality indicator (Gini)

improves the situation in Egypt. By contrast, almost all of these five countries do well in respect of sanitation and education indicators whose elimination lowers their IG index below 100%. Last but not least, Morocco shows a more varied pattern since its IG index shows sensitivity to the structure of employment as well.

These results are interesting and to a large extent reinforce our descriptive discussion of a wide range of indicators in Section 4 above. It should be emphasised, however, that the methodology used here is at best a starting point for estimation of a single inclusive growth estimator. Both the choice of indicators selected for our purposes and weights attached to them are unlikely to meet with universal agreement. Nevertheless, the methodology developed and offered here is flexible enough to incorporate other variations both for choice of indicators and weights applied. In that respect, it is hoped that this approach will encourage methodological debate and prove useful in stimulating attempts to quantify inclusive growth.

**Table 21: Estimated 'Inclusive Growth' Scores, 2000-02 and 2008-10
Based on Normalised Ranks (max=100; min = 0)^(a)**

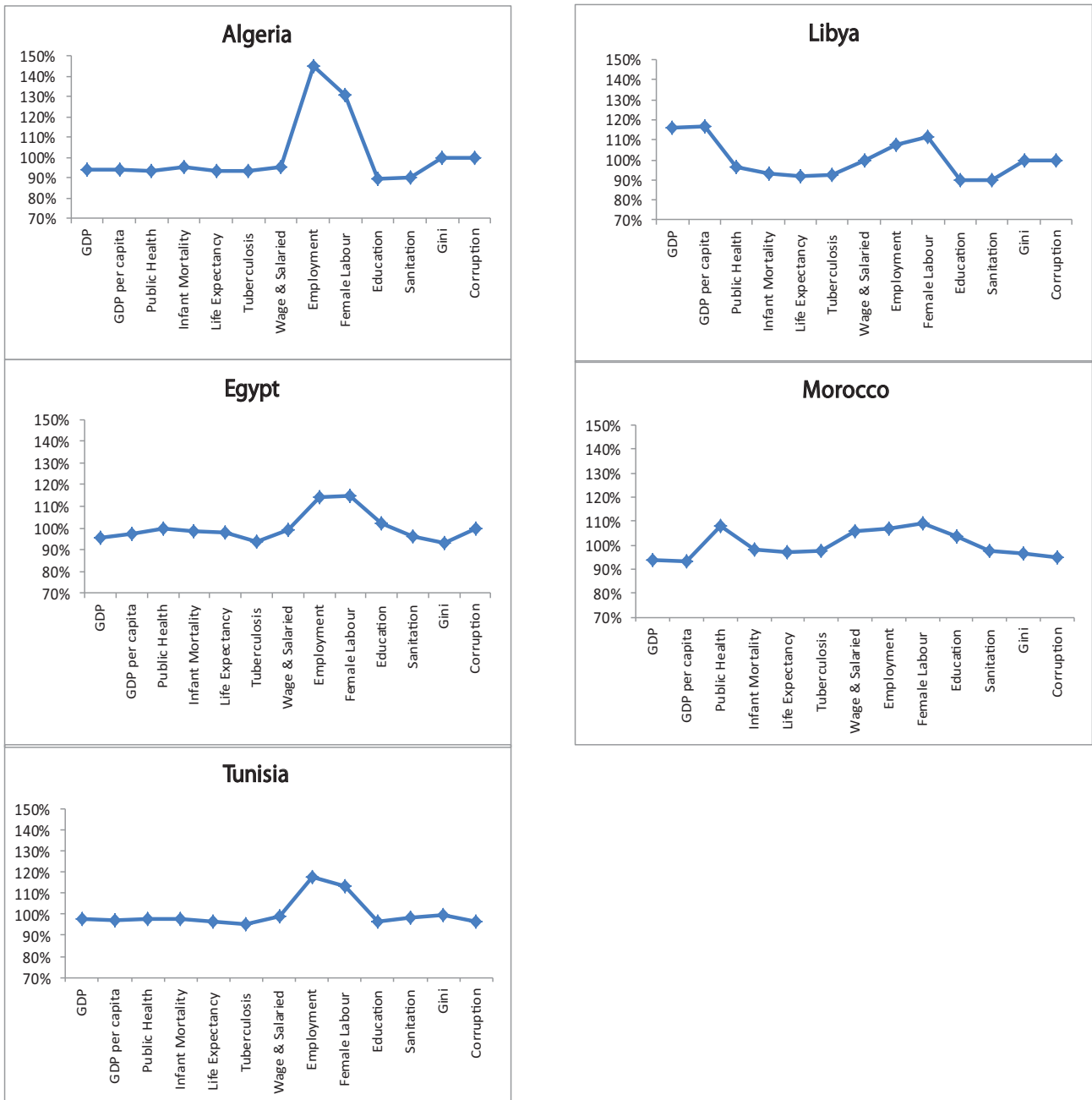
| | 2000-02 | 2008-10 | | Change |
|-----------------------------|---------|---------|---|--------|
| North Africa | | | | |
| Algeria ^(b) | 24.1 | 29.6 | ▲ | 22.8% |
| Egypt | 34.7 | 38.8 | ▲ | 11.8% |
| Libya ^(b) | 29.4 | 37.6 | ▲ | 28.1% |
| Morocco | 29.2 | 31.6 | ▲ | 8.3% |
| Tunisia | 41.3 | 42.4 | ▲ | 2.8% |
| Other Middle East | | | | |
| Iran ^(b) | 32.2 | 27.9 | ▼ | -13.1% |
| Israel | 59.7 | 62.2 | ▲ | 15.9% |
| Jordan | 39.7 | 42.6 | ▲ | 7.4% |
| Lebanon ^(b) | 35.2 | 43.8 | ▲ | 24.7% |
| Saudi Arabia ^(b) | 25.5 | 27.1 | ▲ | 6.5% |
| Syria | 36.2 | 29.1 | ▼ | -19.4% |
| Turkey | 31.7 | 36.3 | ▲ | 14.4% |
| Yemen | 16.7 | 21.6 | ▲ | 29.6% |
| Selected LDCs | | | | |
| China | 47.8 | 56.5 | ▲ | 18.2% |
| Chile | 47.2 | 50.2 | ▲ | 6.3% |
| Brazil | 41.1 | 45.0 | ▲ | 9.6% |
| India | 25.2 | 28.8 | ▲ | 14.3% |
| Indonesia | 27.4 | 31.6 | ▲ | 15.2% |
| South Korea | 62.0 | 54.1 | ▼ | -12.7% |
| Malaysia | 54.4 | 48.8 | ▼ | -10.6% |
| Mexico | 41.6 | 40.8 | ▼ | -2.0% |
| Russia | 53.4 | 42.9 | ▼ | -19.7% |
| South Africa | 30.1 | 20.6 | ▼ | -31.8% |

Note: ^(a) Based on Normalised Country Rankings for indicators specified in Table 20. Mean values of ranks estimated are based on geometric means (for details and methodology, see Appendix Tables 1 & 2).

^(b) Data for these countries exclude 'Inequality' and 'Governance' for 2000-02 and 'Inequality' for 2008-10.

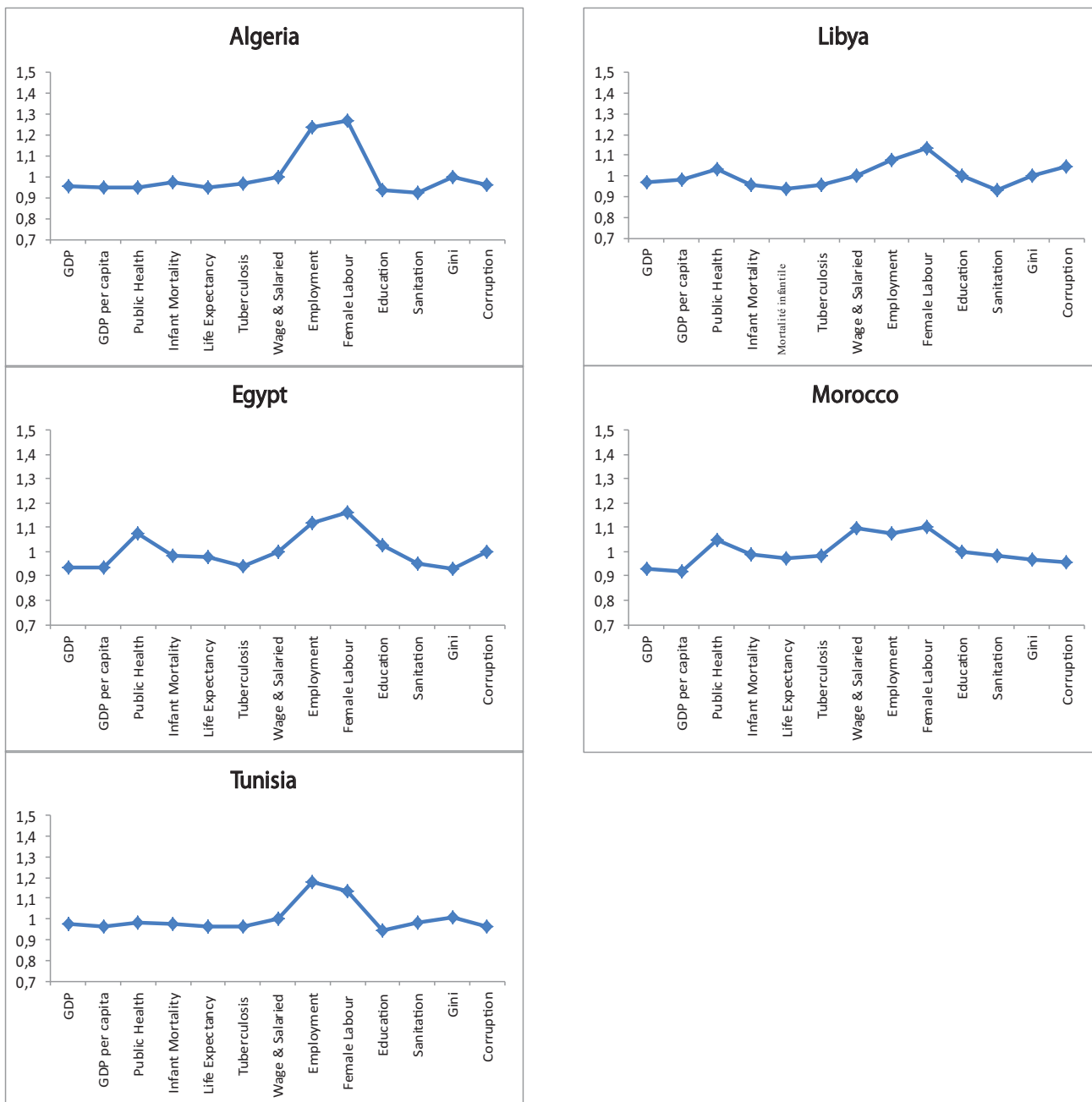
Source: Author's estimates based on data from WDI (2012) and Transparency International (2012) as specified in Appendix Tables 1 & 2.

Figure 3: Sensitivity Analysis 2000-2002



Source: Author's calculations based on Inclusive Growth computations as in Appendix Tables 1 and 2. Figures above 100% as baseline indicate a particular indicator has a negative effect on the overall IG score and hence its elimination (as shown in these figures) will improve the index. The opposite is true of figures below 100% (i.e., the particular indicator has an overall positive effect on the IG score if its elimination as in these figures pushes IG below 100%).

Figure 3: Sensitivity Analysis 2008-2010



Source: Author's calculations based on Inclusive Growth computations as in Appendix Tables 1 and 2. Figures above 100% as baseline indicate a particular indicator has a negative effect on the overall IG score and hence its elimination (as shown in these figures) will improve the index. The opposite is true of figures below 100% (i.e., the particular indicator has an overall positive effect on the IG score if its elimination as in these figures pushes IG below 100%).

6. Inclusive Growth: Towards A New Orthodoxy?

This paper has shown that the longstanding relationship between growth and distribution in economics has been revived in recent years with greater focus on inclusive growth as growth that is capable of benefiting much larger sections of the society. One main intellectual driver behind this has come from the experience of Asia, where an impressive record of rapid growth and structural transformation has indicated that significant reductions in poverty can be achieved against a rising trend of inequality.

Recent developments in the Arab region have provided further inspirations for this line of enquiry with mass protests and the downfall of authoritarian regimes raising major new questions about past growth models. Coming against the background of a paradoxically successful period of growth especially in the last decade, these events have underscored the need for new and fresh thinking about the nature and type of growth in the MENA region and other parts of the developing world. As the new Arab Republics begin to face the challenges of their uncertain economic futures, the imperatives for achieving a more inclusive growth trajectory for the benefit of the widest social and economic groupings is more pressing than ever before.

Our extensive descriptive review of a broad set of development indicators for the past two decades (in Section 4) and an estimation of a combined single score for measuring ‘inclusive growth’ for individual countries (in Section 5) has shown that overall North Africa has fared relatively better recently both in historical terms and compared to many other regions. Overall, the last decade witnessed a reversal of past sluggish or stagnant growth trends, achieving average annual real GDP growth rates of 4%-5% during the period 2000-10. This applied also in countries such as Tunisia, Egypt and Libya where mass revolts and uprisings brought down long reins of autocracy after 2010.

Moreover, the same decade saw a raft of other encouraging achievements: life expectancy rose, educational and health indicators improved, the number and proportion of slum dwellers declined and more people enjoyed civic amenities such as access to improved drinking water and sanitation. Although more controversial, even poverty and inequality data speak favourably

of the region’s experience in recent years if judged by the standard fixed international poverty benchmarks (although there are good reasons to believe that these indicators may understate the extent and incidence of poverty and inequality in the region).

The main area where the region has noticeably lagged behind the rest of the world in recent years is its demographic momentum. As we saw, despite the fact that a much delayed demographic transition (combined falling fertility and mortality rates) has now taken hold, decades of high fertility and fast population growth have nevertheless generated a momentum that continues to present major challenges both at present and for years to come. Taking population size and growth into account qualifies some of the positive economic achievements of the region in the past decade. GDP growth in per capita terms appears much more modest, but above all, it also explains why the region’s overall unemployment rate, which is high by most standards, is translated into a major and pressing challenge of youth unemployment. Strong supply-side demographic pressures will no doubt continue to persist for years and will accentuate the challenge of achieving inclusive growth in North Africa.

The demographic dimensions of the region’s experience of growth and development thus merit close attention in debates about inclusive growth. It is clear that with a highly skewed age structure and a large youth bulge the benefits of growth will have to reach the young to make sure that North African countries can both realise their true economic potential as well as share the fruits of their growth widely. This leads us to conclude that no matter what notion of inclusive growth we adopt, for the region, generating high quality employment will be an essential element and will pose one of main challenges to prospects for achieving inclusive growth. This was also clearly borne out by our estimations of the IG score in Section 5 and the sensitivity analysis which underscored yet again the importance of employment indicators in the region.

While the main task of this paper has been to examine the relevance and application of inclusive growth debates in the North African context, it seems appropriate to end by reflecting on these debates and their ramifications more widely. We will do this by making three points.

First, just as the flaw in the pro-poor growth strategies was perhaps their undue neglect of equality and income distribution, inclusive growth strategies should not lose sight of the importance of a focused and systematic concern with poverty eradication. Since interest in inclusive growth evolved largely out of earlier concerns with pro-poor-growth strategies, there is always a risk that inclusive growth may come to be seen as supplanting – rather than supplementing – concerns with poverty and the imperative to eradicate it. As we saw earlier in Section 3, emphasis on inclusive growth as growth that ‘should benefit all’ – although a useful reminder that growth should be broad-based – may also overlook the fact that any serious bid to improve equality should start with a concern to improve the lot of the poor as a matter of priority. To reconcile inclusive growth with pro-poor growth, we need to take a wider notion of the ‘poor’ by widening the base to embrace those below the median income or somewhere in that region. As ADB has aptly observed, inclusive growth should embrace “...the continuation of pro-growth economic strategies – but with a much sharper focus on ensuring that the economic opportunities created by growth are available to all – particularly the poor – to the maximum extent possible” (ADB, 2007: 13–14). This will ensure that while the accent is on improving equity, the ‘poor’ will not be lost sight of. This is particularly important in the MENA region where, as we have seen, ‘poverty’ – narrowly defined by international benchmarks – seems unduly low.

A second point relates to the circumstances in which recent interest in inclusive growth has emerged in the Middle East region and is likely to evolve. Given that this interest is to a large extent rooted in understanding the ‘shortcomings’ and ‘failures’ of the policies associated with the ancien regimes, and a desire to avoid such ‘mistakes’ in the future, there is an expectation that achieving inclusive growth can act as a ‘social insurance’ mechanism to attain stability and avert future upheavals and revolutions. There are

at least two problems with this perspective. On one hand, it ignores the broader and wider (social and political) roots of discontent that ran deep and wide in these societies by reducing them to economic failures and shortcomings only. On the other hand, it is based on a misreading of the relationship between economic and political cycles. Not all social and political upheavals come against a background of growing poverty and deprivation and MENA’s experience is no exception to this. Arguably, both recent Arab uprisings as well as the Iranian Revolution in 1978/79 occurred during or after periods of oil booms when major and sustained spikes in oil revenues led to periods of growth and relative prosperity for the countries affected.

A third and final caution relates to the continued ambiguity of the concept of inclusive growth and its possible ramifications at policy levels. As we have seen there is as yet no universally agreed definition of inclusive growth. Until consensus is achieved over how precisely to define, measure and monitor inclusive growth, and given its strong popular policy appeal in the current context, there is a risk that inclusive growth will be seen as a vehicle for offering ‘everything for all’. If so, it risks providing a readymade justification for adopting popular policies and, ultimately, acting as a short cut to bringing back old style populism to the region.

Implications for the Bank

From an operational point of view this work has helped the Bank better define how inclusive growth could be monitored in North Africa. This will be instrumental for improving quality at entry and in monitoring and evaluating the impact of the Bank towards the achievement of its 10 years strategy.

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Appendix

**Table 1: Inclusive Growth Scores Based on Country Rankings for Selective Indicators
(averaged for 2000-02)**

| | Growth | | Health and Demographics | | | | Labour Force and Employment | | |
|---------------------------|------------|-----------------------|-----------------------------------|-------------------------------------|--------------------------|-----------------------------------|---|--|--|
| | GDP Growth | GDP per capita Growth | Public Health Expenditure (% GDP) | Mortality Rate, Under-5 (per 1,000) | Life Expectancy at Birth | Tuberculosis (per 100,000 people) | Wage & Salaried (% of total employment) | Employment-to-Population Ratios (% of 15+) | Female Labour Force (% of total workforce) |
| North Africa | | | | | | | | | |
| Algeria | 102 | 104 | 93 | 109 | 101 | 101 | 66 | 172 | 179 |
| Egypt | 80 | 100 | 114 | 107 | 109 | 52 | 68 | 161 | 170 |
| Libya | 174 | 174 | 106 | 82 | 70 | 74 | - | 147 | 162 |
| Morocco | 66 | 62 | 157 | 117 | 110 | 114 | 93 | 151 | 163 |
| Tunisia | 88 | 81 | 85 | 85 | 68 | 49 | 58 | 163 | 165 |
| Other Middle East | | | | | | | | | |
| Iran | 37 | 42 | 122 | 106 | 104 | 50 | - | 165 | 173 |
| Israel | 116 | 144 | 41 | 25 | 10 | 21 | 23 | 135 | 57 |
| Jordan | 46 | 77 | 43 | 83 | 75 | 18 | 40 | 169 | 178 |
| Lebanon | 114 | 125 | 79 | 61 | 93 | 36 | - | 162 | 168 |
| Saudi Arabia | 148 | 164 | 87 | 65 | 83 | 40 | - | 146 | 177 |
| Syria | 57 | 106 | 121 | 73 | 52 | 59 | 83 | 154 | 171 |
| Turkey | 130 | 136 | 77 | 94 | 105 | 65 | 85 | 150 | 161 |
| Yemen | 56 | 113 | 112 | 140 | 144 | 109 | - | 164 | 166 |
| Other LDCs | | | | | | | | | |
| China | 12 | 13 | 142 | 93 | 85 | 106 | - | 22 | 72 |
| Chile | 96 | 94 | 72 | 40 | 30 | 51 | 57 | 134 | 148 |
| Brazil | 121 | 122 | 88 | 97 | 99 | 86 | 61 | 61 | 97 |
| India | 64 | 75 | 160 | 132 | 142 | 138 | - | 90 | 159 |
| Indonesia | 62 | 59 | 171 | 116 | 125 | 135 | 97 | 59 | 130 |
| South Korea | 24 | 18 | 105 | 17 | 39 | 96 | 62 | 76 | 103 |
| Malaysia | 50 | 79 | 137 | 38 | 73 | 103 | 49 | 66 | 140 |
| Mexico | 129 | 133 | 113 | 84 | 48 | 55 | 63 | 83 | 147 |
| Russia | 23 | 14 | 81 | 69 | 128 | 116 | 7 | 105 | 22 |
| South Africa | 90 | 114 | 78 | 124 | 161 | 183 | - | 167 | 88 |
| Countries included | 188 | 188 | 177 | 181 | 192 | 188 | 109 | 173 | 182 |
| Missing Countries | 5 | 5 | 16 | 12 | 1 | 5 | 84 | 20 | 11 |
| Total Countries | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 |

Table 1 Cont'd: Inclusive Growth Scores Based on Country Rankings for Selective Indicators (averaged for 2000-02)

| | Education Ratio of Female to Male Secondary Enrolment (%) | Sanitation Population Using Improved Sanitation Facilities (%) | Inequality Gini Index (2000-04) | Governance Corruption Perception Index | Inclusive Growth Index (IGi)(a) max = 100 min = 0 |
|---------------------------|--|---|---------------------------------------|---|--|
| North Africa | | | | | |
| Algeria | 47 | 59 | - | - | 24.1 |
| Egypt | 117 | 77 | 22 | 60 | 34.7 |
| Libya | 35 | 44 | - | - | 29.4 |
| Morocco | 131 | 106 | 63 | 45 | 29.2 |
| Tunisia | 59 | 86 | 65 | 33 | 41.3 |
| Other Middle East | | | | | |
| Iran | 115 | 64 | - | - | 32.2 |
| Israel | 89 | 1 | 54 | 19 | 59.7 |
| Jordan | 54 | 37 | 52 | 39 | 39.7 |
| Lebanon | - | 37 | - | - | 35.2 |
| Saudi Arabia | - | - | - | - | 25.5 |
| Syria | 119 | 72 | 39 | - | 36.2 |
| Turkey | 135 | 77 | 75 | 56 | 31.7 |
| Yemen | 159 | 132 | - | - | 16.7 |
| Other LDCs | | | | | |
| China | 113 | 124 | 72 | 60 | 47.8 |
| Chile | 68 | 58 | 102 | 18 | 47.2 |
| Brazil | 21 | 97 | 111 | 47 | 41.1 |
| India | 139 | 147 | - | 70 | 25.2 |
| Indonesia | 103 | 130 | 11 | 90 | 27.4 |
| South Korea | 86 | 1 | - | 43 | 62.0 |
| Malaysia | 24 | 56 | 50 | 35 | 54.5 |
| Mexico | 57 | 95 | 91 | 56 | 41.6 |
| Russia | - | 101 | 48 | 77 | 53.4 |
| South Africa | 23 | 96 | 108 | 36 | 30.1 |
| Countries included | 161 | 176 | 116 | 94 | - |
| Missing Countries | 32 | 17 | 77 | - | - |
| Total Countries | 193 | 193 | 193 | - | - |

Notes: (a) The overall inclusive scores for each country (IGi) are computed as a geometric mean for that country of the standardised values for different indicators (defined below) according to the following formula:

$$IG_i = \sqrt[n]{S_{1i} \cdot S_{2i} \dots S_{ji}} \quad (1)$$

where:

(i = 1, ... m: country i included in the dataset);

(j = 1, ... n: indicator j included in the dataset); and

s_{ji} is a standardised score for the rankings obtained in respect of indicator j for country i. These standardised scores are obtained using the following formula (for each indicator for each country):

$$s_{ji} = 100 \cdot \left(\frac{m_j - r_j}{m_j - 1} \right)_i \quad (2)$$

where r_j is a country's rank in respect of indicator j in (descending order) and m_j is the total number of countries for which data for indicator sj is available.

Source: WDI (2012) and Transparency International (2012) for the Corruption Perception Index. The following countries have been excluded from the World Bank's ranking tables mainly for data reasons: Eritrea; Seychelles; Somalia; Antigua and Barbuda; Cuba; Dominica; Grenada; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Bhutan; Iraq; North Korea; Lebanon; Oman; Monaco; San Marino; Vatican City; Kiribati; Marshall Islands; Nauru; Palau; Samoa; Tuvalu; Vanuatu.

**Table 2: Inclusive Growth Scores Based on Country Rankings for Selective Indicators
(averaged for 2008-10)**

| | Growth | | Health and Demographics | | | | Labour Force and Employment | | |
|---------------------------|------------|-----------------------|-----------------------------------|-------------------------------------|--------------------------|-----------------------------------|---|--|--|
| | GDP Growth | GDP per capita Growth | Public Health Expenditure (% GDP) | Mortality Rate, Under-5 (per 1,000) | Life Expectancy at Birth | Tuberculosis (per 100,000 people) | Wage & Salaried (% of total employment) | Employment-to-Population Ratios (% of 15+) | Female Labour Force (% of total workforce) |
| North Africa | | | | | | | | | |
| Algeria | 95 | 91 | 90 | 110 | 98 | 112 | - | 167 | 178 |
| Egypt | 38 | 37 | 145 | 99 | 96 | 49 | - | 153 | 169 |
| Libya | 91 | 100 | 127 | 80 | 67 | 82 | - | 140 | 161 |
| Morocco | 56 | 41 | 143 | 116 | 108 | 116 | 79 | 149 | 163 |
| Tunisia | 78 | 64 | 87 | 81 | 69 | 66 | - | 161 | 164 |
| Other Middle East | | | | | | | | | |
| Iran | 110 | 104 | 128 | 103 | 101 | 51 | 75 | 165 | 175 |
| Israel | 83 | 90 | 57 | 24 | 8 | 16 | 20 | 123 | 49 |
| Jordan | 51 | 59 | 37 | 92 | 87 | 21 | 36 | 169 | 176 |
| Lebanon | 12 | 8 | 100 | 52 | 103 | 40 | - | 156 | 168 |
| Saudi Arabia | 88 | 115 | 123 | 53 | 79 | 46 | - | 146 | 182 |
| Syria | 60 | 63 | 151 | 73 | 54 | 53 | 67 | 166 | 179 |
| Turkey | 116 | 117 | 56 | 79 | 83 | 67 | 69 | 155 | 162 |
| Yemen | 49 | 75 | 156 | 145 | 142 | 94 | - | 158 | 167 |
| Other LDCs | | | | | | | | | |
| China | 9 | 1 | 119 | 75 | 90 | 109 | - | 25 | 85 |
| Chile | 93 | 73 | 80 | 47 | 33 | 50 | 53 | 119 | 135 |
| Brazil | 69 | 49 | 77 | 82 | 95 | 86 | 62 | 52 | 95 |
| India | 19 | 16 | 168 | 133 | 140 | 145 | - | 111 | 166 |
| Indonesia | 39 | 25 | 167 | 114 | 122 | 149 | 85 | 65 | 134 |
| South Korea | 89 | 67 | 74 | 113 | 17 | 114 | 56 | 88 | 112 |
| Malaysia | 79 | 76 | 132 | 38 | 75 | 110 | 50 | 85 | 147 |
| Mexico | 139 | 143 | 105 | 78 | 43 | 58 | 63 | 86 | 145 |
| Russia | 131 | 110 | 91 | 59 | 124 | 122 | 4 | 91 | 22 |
| South Africa | 117 | 116 | 78 | 130 | 174 | 188 | 34 | 159 | 100 |
| Countries included | 182 | 182 | 176 | 181 | 192 | 190 | 89 | 173 | 183 |
| Missing Countries | 11 | 11 | 17 | 12 | 1 | 3 | 104 | 20 | 10 |
| Total Countries | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 |

Table 2: Inclusive Growth Scores Based on Country Rankings for Selective Indicators (averaged for 2008-10)

| | Education Ratio of Female to Male Secondary Enrolment (%) | Sanitation Population Using Improved Sanitation Facilities (%) | Inequality Gini Index (2000-04) | Governance Corruption Perception Index | Inclusive Growth Index (IGi)(a) max = 100 min = 0 |
|---------------------------|--|---|---------------------------------------|---|--|
| North Africa | | | | | |
| Algeria | 66 | 56 | - | 103 | 29.6 |
| Egypt | 111 | 56 | 14 | 108 | 38.8 |
| Libya | - | 48 | - | 134 | 37.6 |
| Morocco | - | 106 | 55 | 85 | 31.6 |
| Tunisia | 33 | 83 | 60 | 62 | 42.4 |
| Other Middle East | | | | | |
| Iran | 106 | 2 | 44 | 152 | 27.9 |
| Israel | 63 | 2 | - | 32 | 69.2 |
| Jordan | 38 | 41 | 30 | 49 | 42.6 |
| Lebanon | 13 | - | - | 120 | 43.8 |
| Saudi Arabia | 123 | - | - | 64 | 27.1 |
| Syria | 76 | 62 | - | 133 | 29.1 |
| Turkey | 125 | 74 | 51 | 58 | 36.3 |
| Yemen | 150 | 120 | 41 | 147 | 21.6 |
| Other LDCs | | | | | |
| China | 37 | 111 | 64 | 76 | 56.5 |
| Chile | 53 | 51 | 86 | 23 | 50.2 |
| Brazil | - | 93 | 92 | 75 | 45.0 |
| India | 126 | 138 | 21 | 85 | 28.8 |
| Indonesia | 82 | 119 | 25 | 116 | 31.6 |
| South Korea | 90 | 2 | - | 39 | 54.1 |
| Malaysia | 24 | 51 | 72 | 53 | 48.8 |
| Mexico | 26 | 85 | 79 | 86 | 40.8 |
| Russia | 105 | 104 | 59 | 149 | 42.9 |
| South Africa | 43 | 92 | 97 | 54 | 20.6 |
| Countries included | 155 | 170 | 98 | 179 | - |
| Missing Countries | 38 | 23 | 95 | - | - |
| Total Countries | 193 | 193 | 193 | - | - |

Notes: (a) The overall inclusive scores for each country (IGi) are computed as a geometric mean for that country of the standardised values for different indicators (defined below) according to the following formula:

$$IG_i = \sqrt[n]{S_{1i} \cdot S_{2i} \dots S_{ji}} \quad (1)$$

where:

(i = 1, ... m: country i included in the dataset);

(j = 1, ... n: indicator j included in the dataset); and

sjj is a standardised score for the rankings obtained in respect of indicator j for country i. These standardised scores are obtained using the following formula (for each indicator for each country):

$$s_{ji} = 100 \cdot \left(\frac{m_j - r_j}{m_j - 1} \right)_i \quad (2)$$

where rj is a country's rank in respect of indicator j in (descending order) and mj is the total number of countries for which data for indicator sj is available.

Source: WDI (2012) and Transparency International (2012) for the Corruption Perception Index. The following countries have been excluded from the World Bank's ranking tables mainly for data reasons: Eritrea; Seychelles; Somalia; Antigua and Barbuda; Cuba; Dominica; Grenada; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Bhutan; Iraq; North Korea; Lebanon; Oman; Monaco; San Marino; Vatican City; Kiribati; Marshall Islands; Nauru; Palau; Samoa; Tuvalu; Vanuatu.

