

**Summary:** Rapid population growth in the 1980s and a sizeable investment in education in the Maghreb has produced an influx of young graduates with low levels of specific qualifications and real competencies on the job market. Poor growth strategy decisions mean that economies there operate with a labor force that is often unqualified and not in a position to keep pace with progress and technological innovation. Although GDP growth rates in Morocco, Tunisia, and Algeria represent a positive performance, they have failed to bring about a significant reduction in unemployment in general and even less a decline in the rate of unemployment among new graduates. In order to tackle the challenges of graduate employment, the Maghreb countries must implement reforms rather than place greater emphasis on the quality rather than quantity of employment. Drafting a real mid- and long-term development strategy seems essential to create jobs with added value and to enhance the competitiveness of exports from Maghreb countries in the context of the economic globalization.

## Graduate Unemployment in the Maghreb

By Ghazi Ben Jaballah\*

### A Time Bomb

The ticking time bomb of unemployment among new university graduates in the Maghreb area has finally exploded. The events unfolding during the Arab Spring have been observed by everyone. Official statistics show a fall in the unemployment trends in the region over the last ten years. According to a study carried out by the Carnegie Middle East Center, unemployment levels from 2000 to 2009 fell from 13.4 percent to 9.1 percent in Morocco, from 30 percent to 10.2 percent in Algeria, and from 15.7 percent to 13.3 percent in Tunisia.<sup>1</sup> But these figures conceal quite a different picture. Indeed in the Maghreb countries, the only people to escape the affliction of unemployment are “old uneducated men.” The story is very different for the young, for women, and more particularly for graduates.

However, so-called “qualified unemployment” is a fairly new economic and social phenomenon. For example, until the early 1980s, the problem of graduate unemployment was not a cause for concern in Tunisia. Quite the

reverse, there were complaints about the lack of managers. Over the same period, the graduate labor market in Morocco “worked as a closed circuit. Graduates were generally trained within the public system, and for better or worse, they found employment opportunities in the public sector thanks to either their qualifications or competitions.”<sup>2</sup>

In Algeria, with its a lack of managers and skilled workforce, public enterprises ensured they could hire labor by relying on training either in the country or abroad. On finishing their studies, a large proportion of the students had a guaranteed position in the administration or in public enterprises. This system worked until the end of the 1980s, but its limitations soon became evident. A good deal of demand for work from this sector was either satisfied by workers who did not have the required skills or left unsatisfied.

In the 1980s, the Maghreb’s employment rate dropped, especially among students who had graduated. Education levels within the unemployed also dropped. In addition, it took longer

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<sup>1</sup> [http://carnegieendowment.org/files/labor\\_maghreb.pdf](http://carnegieendowment.org/files/labor_maghreb.pdf)

<sup>2</sup> Bougroum M., Ibourk A., (2002), Le chômage des diplômés au Maroc : quelques réflexions sur les dispositifs d’aide à l’insertion, FORMATION EMPLOI, n° 79, p.83-101.

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to find a job. Since 1986, the phenomenon has taken on worrying proportions. According to the National Institute of Educational Sciences, even the young who have achieved a fairly advanced level of education are also unable to find work.

The increase in job seekers is due to a rapid population growth in the 1980s and the sizeable investment in education, which has produced an influx of young graduates with low levels of specific qualifications and real competencies on the job market. Poor growth strategy decisions mean that the Maghreb economies operate with a labor force that is often unqualified and not in a position to keep pace with progress and technological innovation.

**Table 1 Graduate unemployment rates 1984-2010**

	1989-1990	2008-2010
Tunisia	5.3 (1989)	21.6 (2008)
Algeria	8.4 (1990)	20.3 (2010)
Morocco	6.0 (1984)	17.7 (2010)

Sources: ONS (1990), Résultats de l'Enquête Main d'Oeuvre, collections n° 32, Algérie (1989/1990), Haut Commissariat au Plan (2010), Activité, emploi et chômage, rapports détaillés, HCP, Rabat. (2010)

## The Current Situation

The addition of excessive numbers of graduates to the labor market in Maghreb countries has been a recurring social problem for a number of years.

Despite increasing resources being mobilized by the governments, the percentage of unemployed graduates remains persistent: roughly one in five graduates is looking for work. This phenomenon is part of a broader context of a general economic weakening.

Surveys on employment carried out in the three North

African countries covered in this paper reveal the same findings: the existence of a marked imbalance between the skills graduates can offer and the real demands of the national economies.

Table 2 illustrates this situation.

Those with a higher level of schooling are more likely to find themselves without

work. For those countries with a greater availability of working labor rather than capital, the waste of such human capital has become unacceptable.

It is clear that unemployment of the best educated leads to a general decline in the level of social wellbeing, and this in turn produces an increase in poverty and social exclusion. From an economic point of view, graduate unemployment results in a fall in productivity of the workforce and a waste of the financial resources for investment in human capital.

There are two major determining factors concerning unemployment among young graduates: 1) the country's economic growth strategies and 2) the education system. Each will be discussed below.

## Growth Strategies

Since 2000, the three North African countries under examination here have shown GDP growth rates of around 5 percent. Although this level represents a positive performance, it has failed to bring about a significant reduction in unemployment in general and even less a decline in the rate of unemployment among new graduates. The job creation process has been disappointing. In addition, in Tunisia, Algeria, and partly in Morocco, the rapid increase in employment and the dramatic fall in unemployment have been achieved at the expense of productivity.

The evolution of productivity of work between 2000 and 2008 in the three Maghreb countries was 0.5 percent, 2 percent, and 3 percent respectively for Algeria, Tunisia, and Morocco. Such rates are far from those recorded by their main competitors in the European market (Poland, 4 percent; Hungary, 5 percent; Turkey, 5 percent; and Romania, 8 percent) or the emerging Asian countries (China, 10 percent; India, 6 percent; and Cambodia, 6 percent) as can be seen in Figure 1.

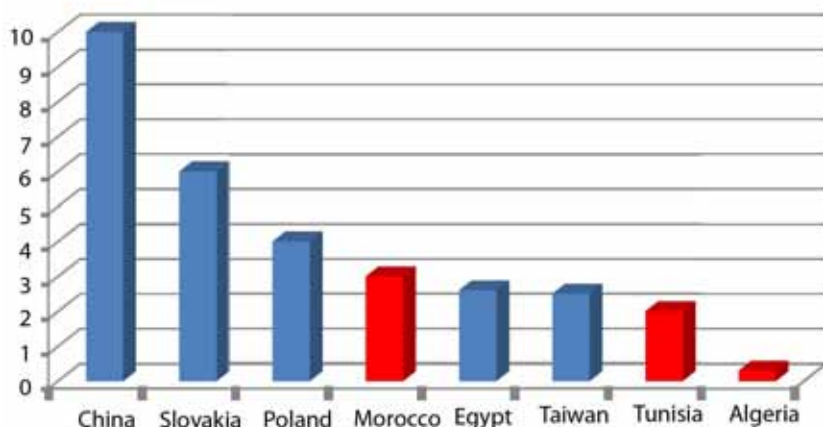
**Table 2 Unemployment rates for education level in 2010 (percent)**

	Unemployment rate	No qualifications	Primary level	Secondary level	Higher level
Algeria	10	1.9	7.6	19.6	20.3
Morocco	9.1	2.3	7.4	16.4	17.7
Tunisia	14.2	5.7	12.3	15.3	21.6

Sources: INS, ONS (2010), Emploi et chômage au 4ème trimestre 2010, Algérie, and Haut Commissariat au Plan (2010), Activité, emploi et chômage, rapports détaillés, HCP, Rabat.

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**Figure 1 Evolution of the productivity of work between 2000 and 2008** Solving this problem requires orienting the economy toward activities with decisive added value and jobs intensive in human capital. In a post-revolutionary environment where an improvement in the system of governance might be expected, the state should find the means to direct its investments towards sectors with a strong concentration of skills, overcome the weaknesses of the financial system, and stimulate technological innovation, which remains the most important source of long-term growth.



Source: Achy L., (2010), Substituer des emplois précaires à un chômage élevé. Les défis de l'emploi au Maghreb, Carnegie Papers, n° 23.

An increase in productivity should be the major objective of a more reliable growth model drawn up by the Maghreb countries. This would allow them to generate greater income and enhance competitiveness. It would increase demand for products and services, which in turn would generate work and set the economy on the path to longer lasting growth.

## Tunisia

The Tunisian economy is based on some sectors (tourism, agriculture, commerce) that work well but rely on nonskilled cheap labor. The country is experiencing difficulties in undertaking a course of stable, balanced growth able to absorb the number of its graduates, which has increased continually over the years. Around 60,000 students leave university with a qualification every year. Comparing this with the 70,000-80,000 posts created every year by the economy, it is easy to understand why the rate of graduate unemployment increases significantly. Approximately 60 percent of new job seekers today are recent university graduates.

The unrelenting unemployment in Tunisia is due to the fact that the job demand from the main economic sectors is largely targeted at “nonqualified” labor. Only a small percentage of the 70,000 jobs created annually come from sectors requiring skilled workers. An average of only 15 percent of workers in productive sectors in Tunisia has an education level higher than diploma.

## Algeria

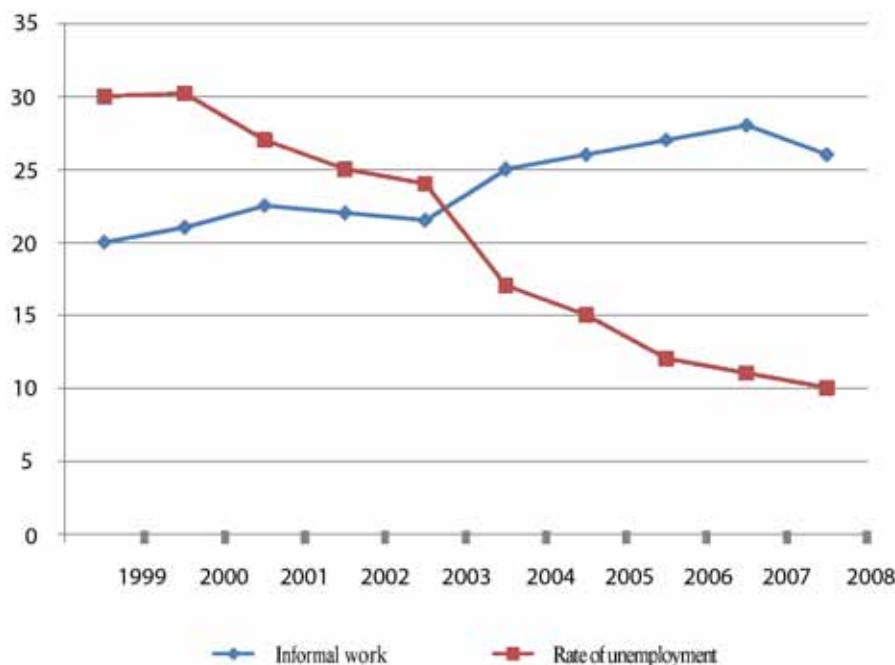
The economic reality of Algeria is different. Until the period of intense political violence in the late 1980s/early 1990s, two-thirds of the active population was employed in the public sector. Thanks to high income from petrol, the country enjoyed a budgetary surplus. Nonetheless, most state enterprises were afflicted by a lack of resources, obsolete technology, and inefficient management. Political and social unrest, coupled with a global downturn in oil prices, forced Algeria to introduce a structural adjustment plan in 1994, which resulted in the reorganization of state companies and subsequent downsizing. Since the private sector was underdeveloped at the time, redundant public employees had little choice but to set up their own businesses. This contributed to an explosion in the informal economy, a fundamental factor in the level of unemployment dropping from 30 percent in 2000 to 10 percent in 2010. The economic policy favored short-term solutions and was based on a range of microcredit programs targeted at financing informal activities. But it also paid scant attention to the detrimental effects this could have on the quality of the jobs created.

This goes a long way to explaining the stagnation of labor productivity in Algeria from 2000 to 2008, positioning the country far behind most of the emerging economies and developing countries both inside and outside the region (see Figure 2).

Escaping from the trap of creating only unskilled jobs requires a radical change in the development paths that have been followed to date. The Algerian economy should diversify away from its dependence on the energy sector. This sector, which accounts for 45.9 percent of the national

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Figure 2 Informal work and unemployment rate in Algeria



Source: ONS (2010), *Emploi et chômage au 4ème trimestre 2010, Algérie*.

wealth produced in 2006 (more than 97.8 percent of exports and 75 percent of the 2008 OCDE income), is responsible for a minor portion of job creation (5 percent).

Today Algeria is obliged to diversify its income and industrial development, and also reduce petrol's revenues which makes the balance of the economy as a whole fragile. Developing mid-term growth strategies and finding ways to orientate private sector investment (both national and foreign) toward sectors with high added value are also fundamental considerations in the drafting of a bailout package.

Structural reform of the economic sector, which to date has suffered from weak infrastructure and lack of transparency as well as imprecise regulations, is needed. The World Bank report *Doing Business 2011* ranks Algeria in 136<sup>th</sup> place in terms of ease of doing business, far behind Tunisia (55<sup>th</sup>) and Morocco (114<sup>th</sup>).<sup>3</sup> Algeria should quickly review its plans for the banking sector, which suffers from the weighty administrative bureaucracy of the public sector. While bank borrowing aimed at the private sector reaches 46 percent

of GDP in Tunisia and 78 percent of GDP in Morocco, it remains under 13 percent of GDP in Algeria. This represents a serious obstacle to private sector development and discourages potential entrepreneurs from starting up innovative businesses, which would in turn produce a qualified workforce.

## Morocco

The evolution of productivity in Algeria was negligible between 2000 and 2008, but the picture in Morocco was quite different, with a growth in productivity over the same period approaching an average of 3 percent. However, even with GDP growth of 5 percent, growth in employment was stuck at 1.7 percent. This means that every percentage point of growth generates an average of 0.34 percent growth in employment (0.55 percent in Tunisia). Therefore the sustained growth of Morocco goes hand-in-hand with a slow expansion of the labor force. The difference between the two rates (GDP and employment) can be attributed to the exceptional evolution of productivity.

However, these positive results are not consistent across all areas of the Moroccan economy. The major beneficiaries have been telecommunications, transport, financial services, and real estate. Opening Morocco up to foreign investment and the liberalization of national markets have made a decisive contribution to increased productivity in these sectors, due mainly to technology transfer. The question posed today for the Moroccan government is how can other economic sectors (agriculture and industry) benefit from the progress achieved in the service sectors? This is a great challenge, which can only be overcome with a responsible mid-term global growth strategy. The approaches implemented to date have involved specific objectives, tools, and incentives. It is now necessary to promote coordination of the efforts achieved in diverse fields, and to correct any institutional shortfalls in the drafting and implementation of development policies.

As well as institutional reorganization, the Moroccan government would have to prepare suitable professional

<sup>3</sup> Table 1.2, <http://www.doingbusiness.org/reports/global-reports/doing-business-2011/>

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training structures. This is fundamental to ensure that the country shifts to a more productive economy. The current low level of education<sup>4</sup> represents a serious hurdle for Morocco's transition towards more productive development. The government should therefore find a way to motivate businesses to invest in professional training. According to the World Bank (2006), an extremely low proportion (less than 20 percent) of Moroccan industries offers their workforce training;<sup>5</sup> the average share for emerging economies is rate is 50 percent, and more than 90 percent in China and Poland.

## Reforming the Education System

The University of Shanghai conducts an annual review of the best universities in the world, and in the 2011 ranking the best university in Morocco comes in at 1,359<sup>th</sup> place, Algeria's best ranked 3,509<sup>th</sup>, and Tunisia's best was in 6,719<sup>th</sup> position. In a 2007 sample of 48 countries, the *Trends in International Mathematics and Science Study* ranked Tunisia 32<sup>nd</sup> for both mathematical knowledge and science in general, while Algeria was 39<sup>th</sup> for mathematical knowledge and 42<sup>nd</sup> for science in general.<sup>6</sup>

These two rankings offer a clear picture of the poor standing of these Maghreb countries in the educational field. This state of affairs explains, to a certain degree, the problem of graduate inclusion in the workforce. The argument that poor congruence between university training and the needs of the economy — generally put forward by entrepreneurs — is the focus of attention for many observers of the phenomenon. On the other hand, the debate on the need to adapt university training to suit the business needs (or incidentally to the job market needs) has acquired particular weight in Tunisia since the notion has gained ground that the university is partly to blame for graduate unemployment because of the inadequacy of the training it offers. The analysis by Moatassime (2000) is clear in this respect. “The institutional training provided by university in Maghreb countries seems to prepare students mainly to be employees

rather than entrepreneurs, to become unquestioning consumers, rather than to produce in a creative way.”<sup>7</sup>

So the considerable variation in rates of unemployment depending on specialization is not casual. In Tunisia, for example, unemployment among IT graduates stands at 15 percent; for language graduates, excluding Arabic, it ranges from 18 percent to 20 percent. It is considerably higher on average among graduates of classical subjects, at 47 percent; for science graduates (mathematics, physics and chemistry), 36 percent; 56 percent for biology; 55 percent for Arab language; and 51 percent for law. On the other hand, the rate of unemployment among engineers is 10 percent, lower than the national rate. There is a similar variation depending on specialization: 19 percent among agronomists and only 3 percent among IT and telecommunications specialists. (Ministry of Work and Professional Youth Recruitment and the World Bank, 2009).

Yet Maghreb students tend to concentrate on the humanities, social sciences, law, and teaching. A breakdown of university students in different disciplines shows that the percentage studying engineering is only 6.7 percent in Morocco, 9.2 percent in Algeria, and 10.7 percent in Tunisia. This imbalance translates into a shortage of skilled labor in the market in the sectors of greatest private sector demand. Nevertheless, explanations should not be sought by looking at the allocation of financial resources. Figure 3 shows that, at more than 5 percent of GDP, the share of public spending devoted to education in general is higher than the average funding allocated by emerging economies, which are achieving considerably better results.

It can be noted that the three Maghreb countries are all facing the same problem, which might be summarized as the very mediocre quality of teaching in spite of huge spending. What are the possible remedies? It might be possible to exit from this impasse in three stages:

- The Maghreb countries should be inspired by the experience of Eastern Asia and Latin America, adopting an education model where science and engineering faculties have a thriving number of students, who can then

<sup>4</sup> In 2010, 62.3 percent of workers were not graduates and 25.7 percent had mid-level education (primary schooling certificate, specialist vocational diploma or qualification). Only 12 percent had a higher level of educational qualification.).

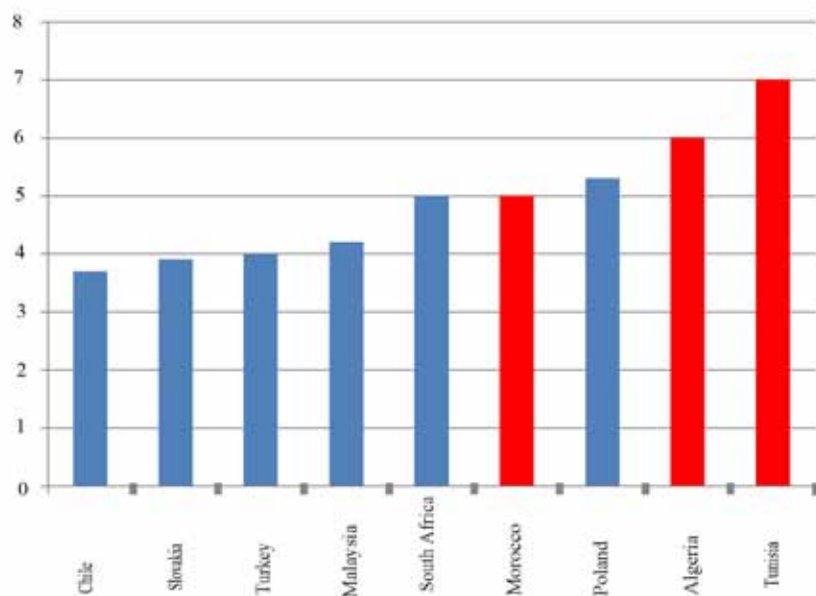
<sup>5</sup> World Bank, 2006.

<sup>6</sup> [http://timssandpirls.bc.edu/TIMSS2007/intl\\_reports.html](http://timssandpirls.bc.edu/TIMSS2007/intl_reports.html)

<sup>7</sup> A. Moatassime, *Diplômés maghrébins d'ici et d'ailleurs, trajectoires sociales et itinéraires migratoires en Correspondances: Bulletin d'information scientifique*, n. 63 (2000/11-12), Tunis: IRMC Institut de recherche sur le Maghreb contemporain.

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**Figure 3 Public spending on education as percentage of GDP**



Source: personal processing

be oriented towards the sectors where skilled labor is in demand.

- In a political context where democracy is spreading, decisions should be more decentralized, breaking with the traditional centralized approach adopted. The partial reforms and short-term solutions adopted over the years have been characterized by the lack of commitment by the parties involved (particularly from university teachers), which has made them ineffective and almost impracticable. The reforms one would wish for demand strong political goodwill, the real involvement of all stakeholders, political legitimacy, and an improved method of government to ensure optimization of public resources.
- The role of the state in education should be reduced by creating synergies between public service and the private sector. The Maghreb countries have to learn from the best international examples in terms of conception and management of the education system. They should look to public-private partnerships in the development of programs and educational funding, to evaluation of teachers and principals, and to greater autonomy and accountability for public institutions and universities. The reform should, at the same time,

improve the performance of students and ensure increased educational flexibility, in line with the demands of the labor market.

All this would contribute to lightening the burden that weighs down the budget. It would modify the education system based on market needs in terms of competencies and qualifications. Opening professional training to the private sector could both expand the capacity for training and strengthen the partnership between government and private enterprises.

## Conclusion

In order to tackle the challenges of graduate employment, the Maghreb countries must implement reforms rather than continue to allow flattering but deceptive statistics to prevail. It is imperative that policies place greater emphasis on the quality rather than quantity of employment. Drafting a real mid- and long-term development strategy seems essential to create jobs with added value and to enhance the competitiveness of exports from Maghreb countries in the context of the economic globalization.

Specifically, it is absolutely essential that the Algerian economy cease to be excessively dependent on the hydrocarbon sector, which is capital intensive but requires little labor. Orienting private sector investment from either national or foreign sources toward the sectors that have strong added value, greater business transparency, and improved stability in regulations are factors to consider in order to lead the Algerian economy towards long lasting growth.

Morocco, for its part, has recorded a strong growth rate over the last decade. Despite this, the reduction in unemployment is not so much a reflection of a capacity to create work as a result of a feeble growth of skilled labor. The gain in productivity has favored a limited number of sectors i.e. telecommunications, transport, financial services, and real estate. As a result, the challenge for Morocco is in translating the progress achieved in some sectors into an increase in productivity and efficiency in others — an objective that can only be achieved with a coherent mid-term, global growth strategy. At the moment, the approach of the

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Moroccan government has been sectorial, fragmented, and inappropriate. In addition to correcting the institutional lack of compliance linked to the drafting and implementing of development policies, the government should also concentrate on improving human capital through professional training. Today, the lack of human capital constitutes an obstacle for a Moroccan transition toward a more productive economy.

Despite economic success over the last 30 years, Tunisia's growth is vulnerable since it relies on excessive specialization. Tunisia has built its development strategy around sectors requiring few skills, based on unqualified and "good market value" labor, namely textiles, agriculture, trade, and tourism — sectors offering little work to newly active and qualified personnel. Over the last ten years, the educational level of workers has improved considerably, but this fundamental change has not been matched by an increased demand for work. The impressive results in the educational field, a key sector in the Tunisian social model, have been wasted at both the individual and collective levels, due to the limited ability of the economy to absorb a qualified workforce. Tunisia should therefore re-orientate its activities towards sectors and industries that are intensive in human capital, stimulate technological innovation and overcome the weaknesses in government procedures and the business world.

The excessive level of unemployment among educated workers underlines the need to try to resolve the causes of this unemployment, reforming the educational and professional training systems in an effective way. The partial reforms and short-term solutions adopted over the last decades have often been ineffective and are no longer viable. Real reform demands political will, active participation of stakeholders, and an improved system of government to ensure optimal use of public resources in the public interest. Actors who favor the reforms will need political support to enable them to win over those with a vested interest in maintaining the current status quo. These are some of the fundamental reasons for the mobilization of the masses in these countries in recent months.

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