Impact of some social, demographic and economic phenomena on sustainability of pension systems in the Arabic world

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One of the PhD workshops within the Faculty for Economics of the Szeged University designated a series of studies to the problem of aging societies, with a special focus on pension system challenges. The author of this article started participating in this work when the majority of the publication was already edited, so the recently published book of studies (Botos 2009) did contain analyses of pension issues in the EU context, then Germany, Post communist countries, Russia, China and India but the entire Arabic world was missing. This article tries to keep up with the very qualitative series of studies on this issue, introducing a territory that has a very different social, demographic and economic background compared to the other parts of the world.

Keywords: pension systems, MENA countries, women's rights, pension contribution rate

1. Research context and introduction

In Europe relatively little attention is paid on demographic and economic processes of arab societies that currently have a young age structure. By profound analyses we can take such conclusions relating to our pension system which forewarn to the cornerstones of the long-term sustainability of a system in general. In Middle East and North African Arab Countries (MENA countries) the pension systems have several, system level disadvantageous characteristics. The pension systems will be huge and non-fundable in the long run, although currently there is a very narrow coverage of the population. Nowadays there is too little attention turned to that, because these systems based on very young societies still produce surplus, not deficit. This will change soon.

First of all we have to admit that Arab societies' policy makers don't necessarily even want to cover the entire old aged group, since there are several traditions concerning the care about old aged persons, and usually at least two, rather three generations are living together in one single family economy. But this is not

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always sufficient to save and treat old aged people – especially women – because a large part of them have no relatives to rely on. This will be introduced later in more detail.

The narrow coverage ratio of the pension systems is not prepared for demographic changes either, which will remarkably reshape the age structure of the society of MENA countries resulting bigger and bigger dependency ratios. In the meantime, the retirement regulations are quite permissive – more to say, exceptional – and large replacement rates can be reached after relatively small vesting period. Moreover, in most of the cases there is no income ceiling on which the pension calculations are based, or it is too high to be long term sustainable. The retirement age limits are low, as well. In addition, on the other side significantly high rate of black and grey economy, the special labour market conditions of women and immigrant workers are typical in most of the examined countries.

The management of the systems is not adequate either. The first objection can be raised regarding the transparency. It is frequent that different pension schemes were established for different labour force groups. The mobility of the labour force between these schemes is difficult and complicated, and sometimes even impossible. The management is weak, the investments are not diversified properly. The characteristics of the labour market result that the majority of the society is uncovered by pension services. First, the pioneer researches of UN and World Bank revealed all these factors between 2002-2007.

Figure 1. MENA countries

Source: OECD

The researchers have started to raise the alarm in MENA countries during the last few years. The first step was the Arab Plan on Ageing to the Year 2012 (ESCWA 2002). The aim of this current paper is to present the economic and social factors behind Arab pension systems and the demographic processes obstructing sustainability in actual regulations of the systems. The paper attempts to reveal those regulating and managing failures which worsen their sustainability further.

2. Special economic and social factors in MENA countries

2.1. Informal economy

Besides the officially registered manufacturing sector in each country there is an informal sector in which not registered labour force does productive work. The size of the informal / illegal / non-regulated labour market and the produced income can be estimated, but significant differences are observed by continent to continent. According to OECD data, in certain African countries black and grey economy generates further 50-55%, in some cases 66-70% of the official GDP. In Latin America this ratio is about 40% in average (with quite important deviation: in Bolivia 68%, in Chile 19%), while in Singapore 13, in Japan 11, in developed

European countries is about 17-18% in average (Schneider 2002). In Hungary according to the calculations of researches referred by the government hidden income produced in black economy is 18% compared to GDP. In Hungary its source is mainly smuggling and concealment of excise tax, tax evasion (VAT), undeclared employment, software product piracy and the violation of the consumer protection act. (Government 2007)

According to a study prepared in Jordan on the Arab world (Saleh 2008), in MENA countries there are two primary causes of the majority of the black economy: first is that the family businesses have a great historical tradition. Services, trade and small-scale output are generally realized by unregistered small enterprises with the help of family members. Other problematic field is the official employment of women which is varying country by country. The second cause is that the labour law regulations are harmonized to the traditions, so in most Arab countries for the internal service sector, the family-owned small businesses and agricultural workers labour law regulations are not valid. So these people don't receive social security services, pension, day-off etc.

From the aspect of the extent of used labour force, in the developing countries the significant part of the available labour force works in the informal sector. In the MENA countries this reaches 48-55% of the total labour force excluding agriculture (Robalino 2005). 51% in Latin America, 78% in Sub Saharan Africa (excluding South African Republic) work illegally (WIEGO 2002).

It's worth mentioning that the measurement and monitoring of the economic performance and labour force usage of the informal sector is highly debated. Although ILO has been attempting to create uniform concepts and methods since 1972, the measurement methods and the comparability of data are still not objective due to the nature of the phenomenon. This field is not part of this analysis, but the phenomenon itself is worthy to note.

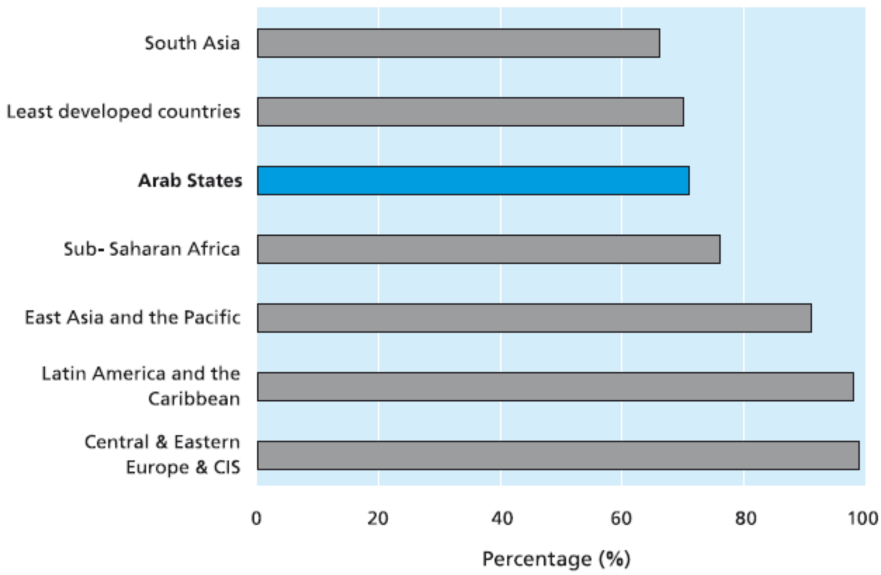
Additionally, economies of MENA countries are very heterogeneous. There are ones operating market-type reforms, "civil" states like Jordan or Lebanon. Kingdoms, emirates rich in oil or natural gas form another group. There are „powder kegs" with important row materials like Iran or Iraq, and there are organized military states, like Libya. Depending on the structure of the state, the role and power of the private and public sectors alters in the economy. In the center of this analysis still there are such characteristics which ensure the future warnings and the possibility of taking general consequences.

2.2. The position of women in society and their chances

Social state of women is worth special attention as well. It is a worldwide demographic trend that women live longer than men. Actual aged generations represent this phenomenon really sharp. In the world in total, two thirds of the people at the age of 75 or above are women. In the Arab countries care for older people is mainly based on family connections, the governmental care systems are still not well-prepared for the attending older people, especially old women.

One of the factor of the social isolation of women is that they are deliberately uneducated which can be originated in the previous several decades – the exclusion of women from education. The other fact is that their employment also has obstacles in certain Arab countries (UN 2006).

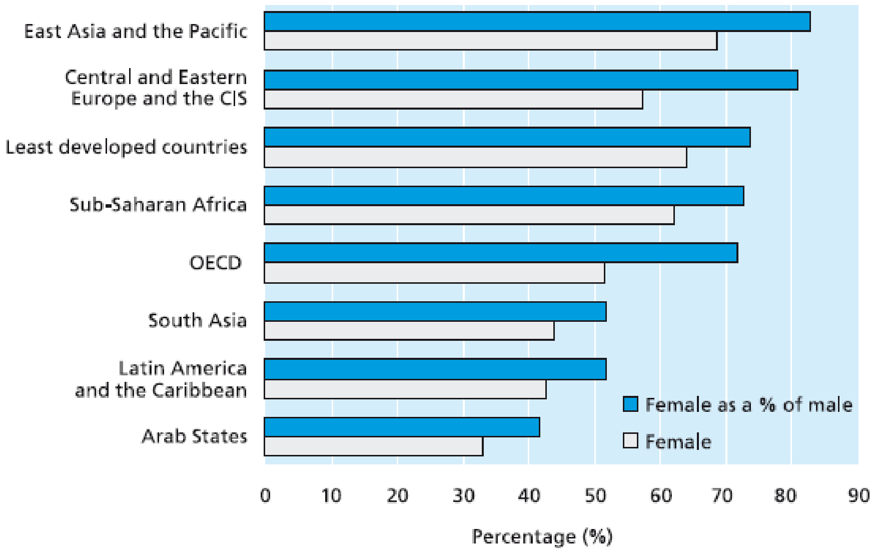
Figure 2. Female literacy rate as a percentage of male literacy rate (age 15+ years), world regions, 2003



Source: UNDP 2005

The major problem of the relationship of these two phenomena is that however the developed countries and international organizations spend high amount of money for the sake of female education programs (and the UN study expresses that these girls usually even score significantly better in school than boys), their entering to the labour market is very difficult anyway.

Figure 3. Female (age 15+ years) economic activity rate (%) and female activity rate as a percentage of male activity rate, world regions, 2003



Source: UNDP 2005

As a majority of women will not be able to enter the official labour market just hidden economy, they also won't be able to make arrangements for their old age. This will increase their dependency from their family members.

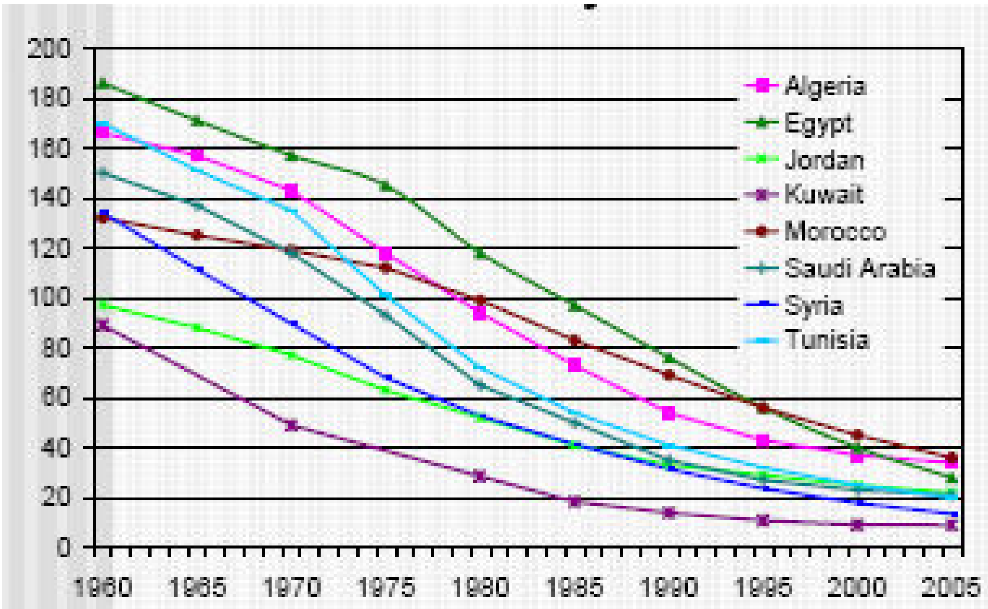
Another vivid example of the judgment of women is when they get widowed. For example, in those countries of the examined group where armed conflicts have occurred, 84% of the widowed persons in the area were women in 1996 (UN 2007b). In the most Arab cultures, re-marriage is the exception for men, while women are practically morally stigmatized if they would wish to marry again after their husband had deceased. These factors result in a very negative position for them. In the meantime, the average age of the women increased so much, that their isolation in such situations lasts much longer, locked inside their own society, than before.

2.3. Demographic factors and labour market interdependencies

One of the most common demographic factors of the MENA countries is the dominance of young aged generations within the total population. In parallel with decreasing, but for a European level still high fertility rates the infant mortality has also radically decreased in these states, while life expectancies at birth are reaching European levels. If we add the already stated growing appearance of highly educated women to the labour market, we clearly see a warning of dramatic changes within 25-40 years in these nations (ESCWA 2002 IUSSP).

From the end of the fifties very positive changes have started in the MENA countries. Mortality rates decreased, life expectations improved, the quality of medical services improved significantly.

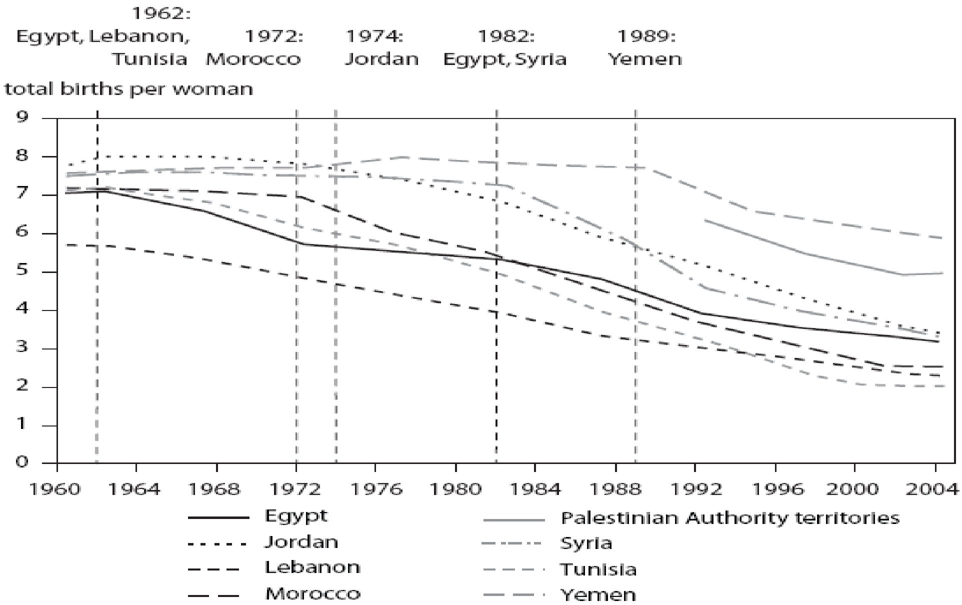
Figure 4. Number infant death cases per 1000 live births (infant mortality rate) in some Arabic countries



Source: Noland-Pack 2007

Although the preciseness of these data concerning Egypt, Saudi-Arabia and Tunisia above is questioned by Jordanian researchers (Saleh 2008), it surely can be stated generally, that thanks to the improvements of the healthcare systems, the infant mortality decreased to its fifth during the last four decades. Fertility rates did not start decreasing at the same time, only about two decades later, int he nineteen-eighties. These fertility rates didn't decrease as strong as the mortality rates, and they are still above European figures.

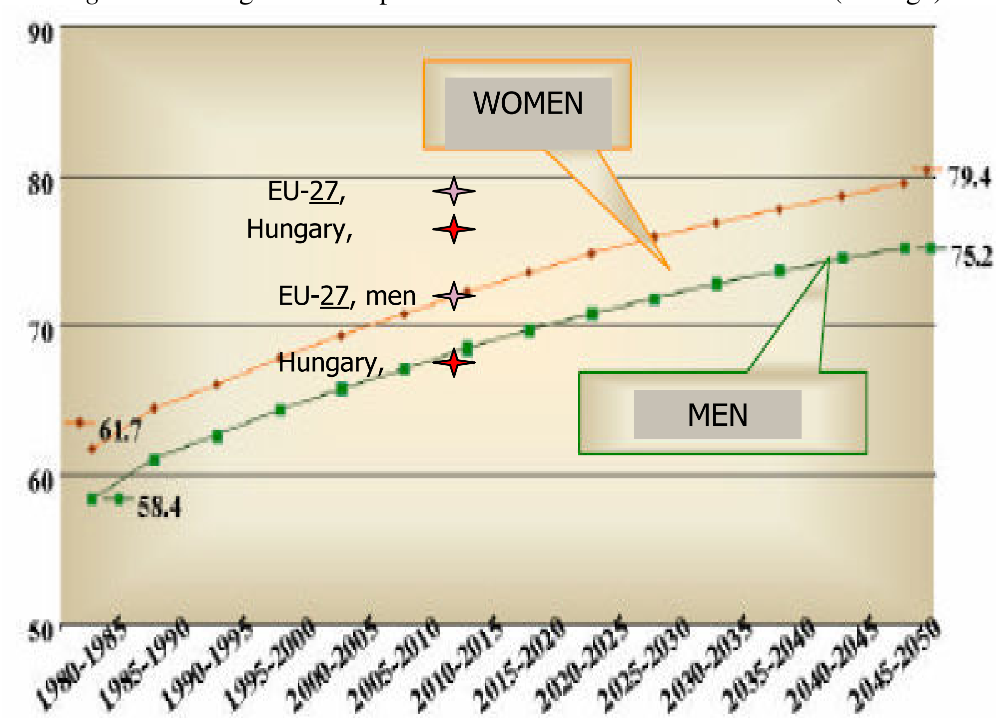
Figure 5. Change of fertility rates in selected countries



Source: World Bank, World Development Indicators, 2004, April 2006

The life expectancies at birth also improved a lot in these countries, resulting in a fact that Arabic countries can proudly offer 75 years for men instead of 58, and almost 80 years for women instead of 62 as it was 25 years earlier.

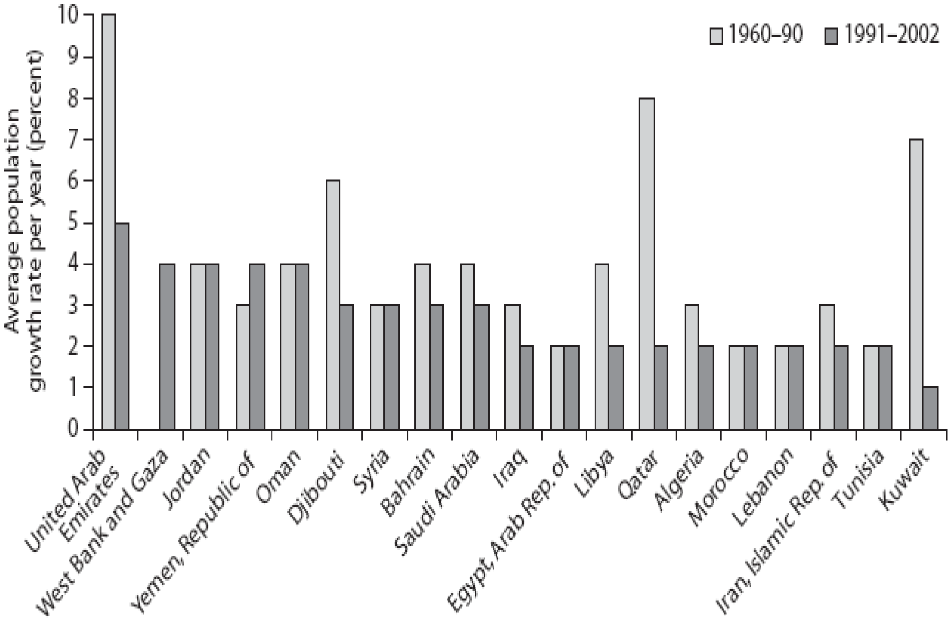
Figure 6. Change of life expectancies at birth in Arabic countries (average)



Source: UN 2007b

These factors bring a high level of rising in the population of the examined countries. The increase is not that intensive anymore, as it was in the sixties or seventies, but the process goes on int he twenty-first century as well. The previously unexpected 6-8 percent of population growth has fallen to 2-3 percent per year, but this growth is becoming very constant. In many Arabic countries we can see a stabile increase of population since forty years. The size of the population in the United Arab Emirates, Qatar and Djibouti is showing a slow down, but is still in the positive range. These dynamics will decrease further between 2015 and 2025, to an average +1,5% per year (Robalino 2005).

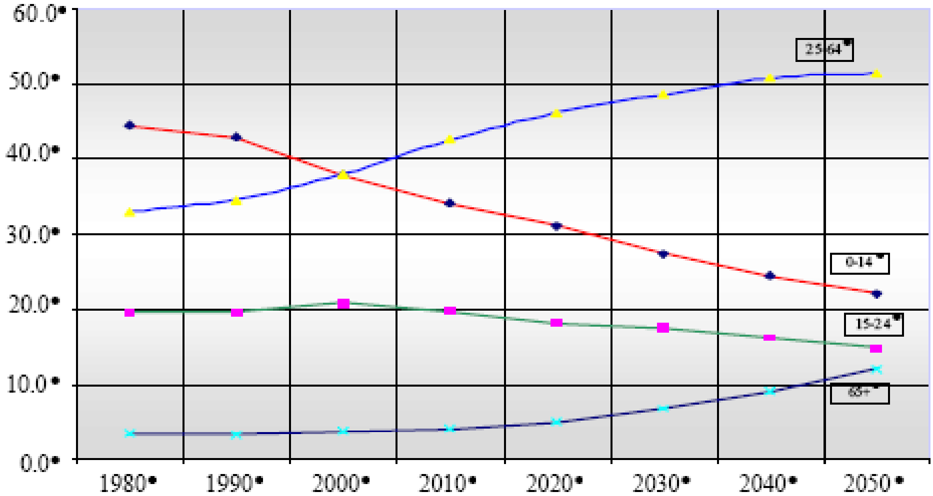
Figure 7. Annual average growth rate of population in MENA countries (percent)



Source: Robalino 2005

It can be stated, that while the age group of economically active cohorts will constantly grow on a small level, the age group of inactives (people above 65 years of age) will suddenly grow from 2020 onwards.

Figure 8. Extrapolated change of the size of age groups in MENA countries (percent of total)

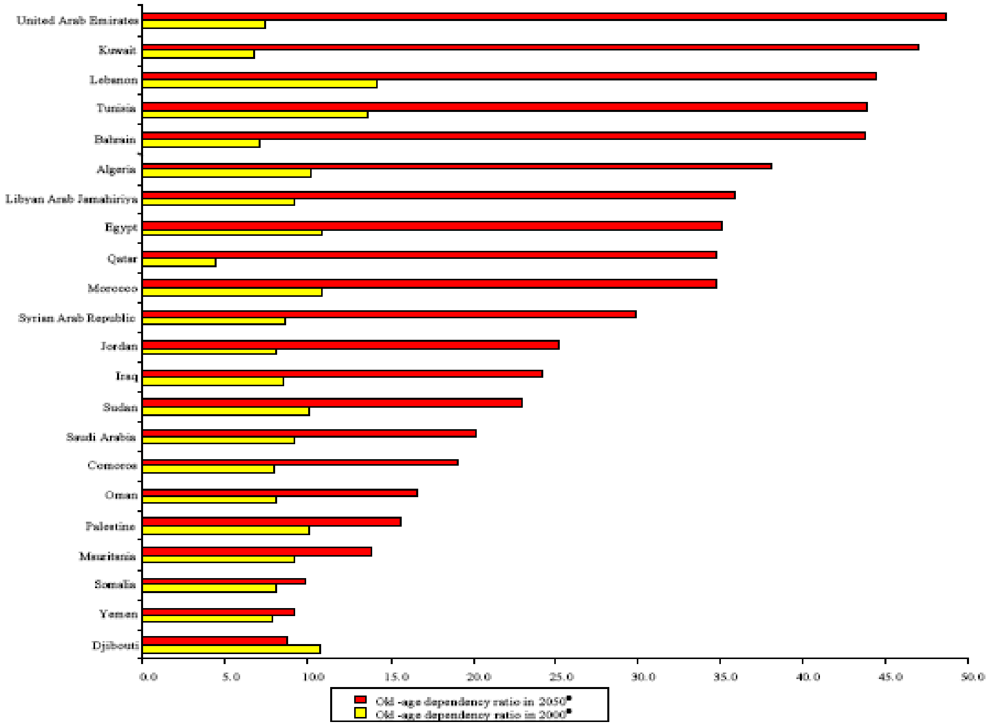


Source: UN 2007b

According to the figure of this UN model from the year 2007 it can be stated that now 55% of the population of the Arabic countries are under 25 years of age and from now onwards this rate will reduce by 20 percentage points (!) by 2050. During the same period of time the rate of the age-group between 25 and 64 years of age will increase from 42 to 51 percent. After the year 2020 the rate of people above 65 will increase dramatically, from the present 5% to 12%, which means more than double share form the population.

Derived from all these the significant increase of old age dependency ratio was predicted [UNO 2007a, 2007b], namely the rate of the 65 and above would increase significantly compared to the age group between 15 and 64. The most stupendous changes are expected in the oil-emirates. In the case of Kuwait, Bahrain, the United Arabian Emirates and Qatar it means that the old age dependency ratio increase from 4-6% to ten times (!), 44-48% in 50 years. The change will concern the South-African Arabian States and Yemen and Palestine less:

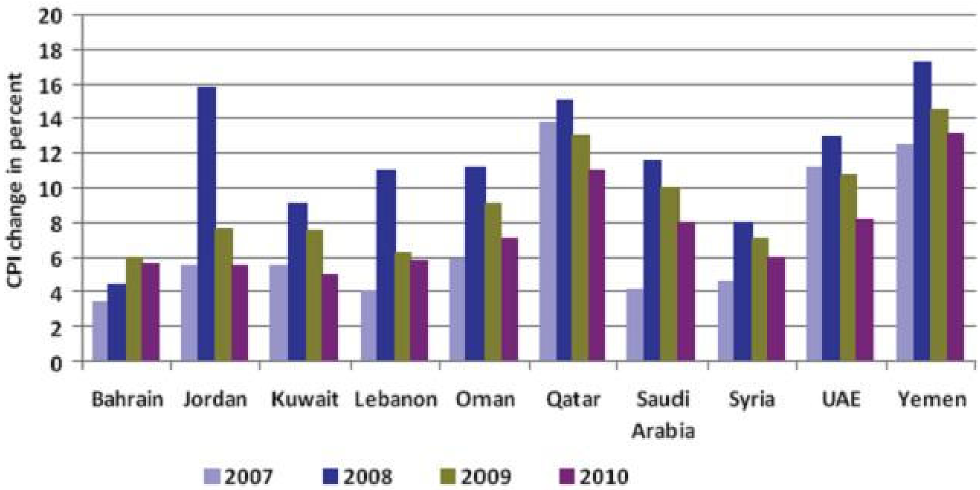
Figure 9. The extrapolated change of old age dependency ratios between 2000-2050 (percentage)



Source: UN, 2007b

The first main question under these circumstances about the effect on labour market will be whether it would be enough legal working places for approximately 50 million more economically active people in the Arabic world until 2015, to absorb the present young generation's labour force. (Here I have to refer again to the subject of the informal economy, which was mentioned earlier.) However even if there would be enough official workplaces under favorable circumstances, the question that how the present high implicit rate of return (see later) that pension systems are offering would remain sustainable. Theoretically if the labour market succeeded in absorbing this mass and the increase remained continuously, the pension systems would be able to roll the present high rate of return to the next generation, and no restrictions, for example income ceiling should be introduced. However this has a really small chance, since the private sector probably wouldn't be able to induce appropriate investments and development for such a growth, while in the public sphere such quantity of workers wouldn't be able to find a job. Among certain Arabic countries we find huge differences in this field, mainly in the number and measure of state enterprises. But it is already frightening that except the states with rich fossil energy resources, the unemployment rate is getting up officially to between 15 and 30% (Aluwaisheg 2004), while inflation is high as well:

Figure 10. Consumer price indices' changes, including predictions for some MENA countries

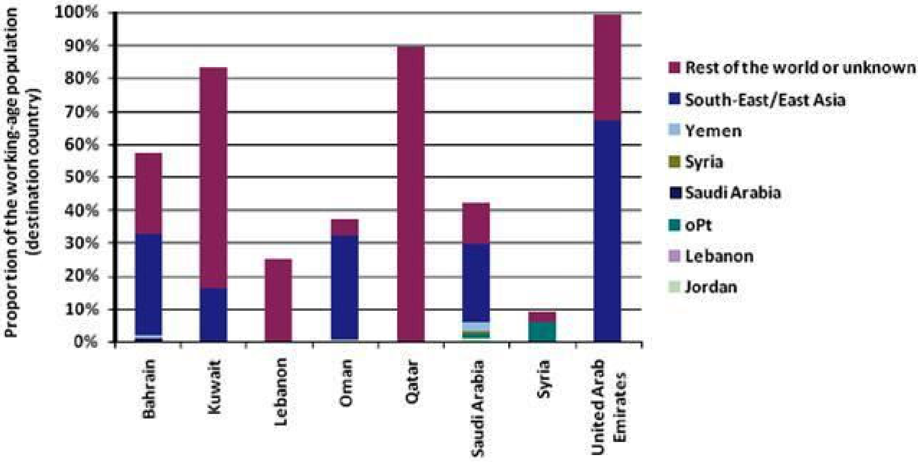


Source: IMF, World Economic Outlook Database, October 2008.

3. The sustainability questions of pension systems

Compared with the relatively large covered share of the population in European (Galasso 2007, Botos ed. 2009) and American pension systems, in the Arabian countries – apart from some exceptions, where the public sphere dominates – on average 25-30% of the active aged population will have a share in pension (SSA/ISSA 2009). The pension systems of certain countries are really young. The longest history of a state operated pension systems in the area can be found in Iraq, where it was founded in 1950. Certain states started to pay pensions only after 10-15 years fundraising periods in the eighties, in an uprising system to their insured clients. We can see many unique cases. It is characteristic that the oil emirates give a huge amount of citizen allowance (mostly to men), then again there is not a compulsory pension system to the private sector, in addition the national pension rules were not extended to the numerous foreign employees of the emirates.

Figure 11. Share of immigrants compared to the total working age population of selected countries



Source: own creation

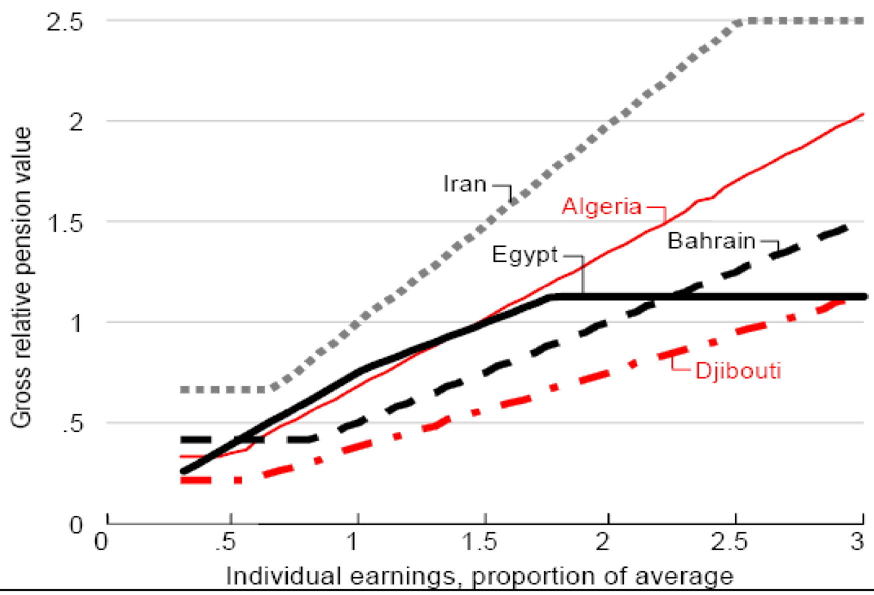
A serious need for jobs will surely force the leaders of the most advanced Arab countries to modify their policies concerning allowances for their citizens and these people will have to start thinking about going to work. But such a decision will have a currently hardly estimated effect on the immigrants' home countries as well.

In the case of the MENA countries with a more serious army (eg. Libya, Gaza Strip or Iran) policy there is a special pension system for this sector, under more favorable conditions of retirement (Country Profile: Iran). The political intention behind that is clear and makes the military a more inviting profession for the employees. To the public employees and state employees the pension system has been evolved everywhere, but the private sphere hasn't. On voluntary ground the joining to the pension system of the private employees is possible just in a small part of the MENA countries. But if someone got into the pension system, can wait his/her inactive years with characteristically good expectations. In addition, the systems are self-financing at the moment, which means nowhere is necessary to draw in additional sources from the state budget: the contributions given from the current active generation produce surplus and cover all the expenses (Rutkowski 2007).

The scale of the granted minimum pension is usually between 35-70% of the average wage, the income ceiling, which is the base of the calculation of pension is missing from the pension systems of the most states. So the pension of those, whose earnings are outstanding, totally act linear upon the higher contributions paid currently by them (see later).

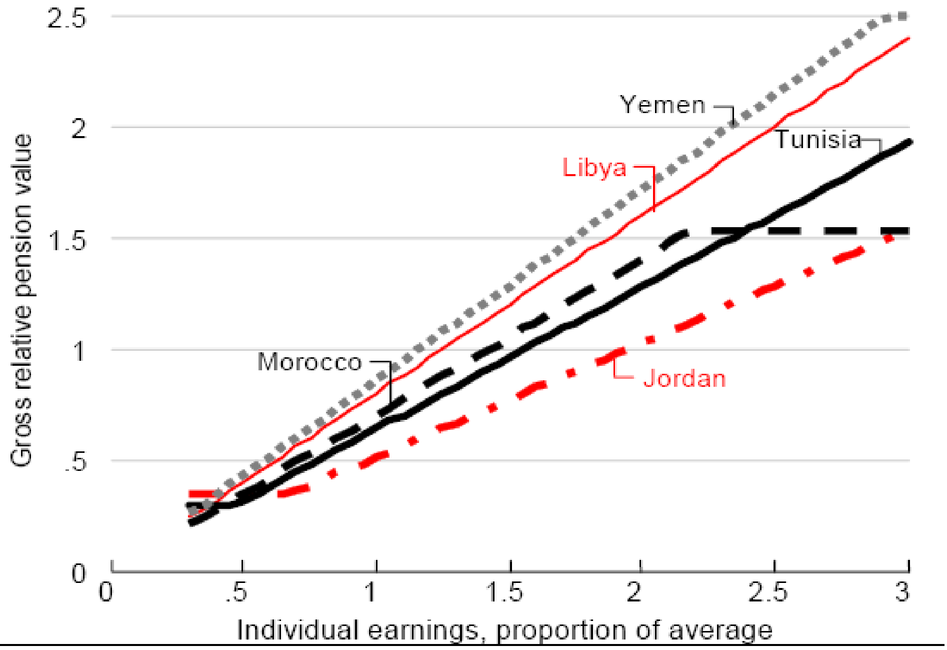
The first important sustainability question is the gross relative value of pensions according to the income before the retirement (rate of income substitution). By the survey of the World Bank it can be seen that the gross relative value of pensions in MENA countries in the case of average wage is its 50-100 percent (Iran pays outstanding high pensions for military), and the amount of pension is usually based on the – mostly – higher income directly before retirement (except from Egypt).

Figure 12. Gross relative value of pensions (y) in the rate of average wage (x) in certain MENA countries (1.)



Source: Rutkowski 2007

Figure 13. The gross relative value of pensions (y) in the rate of average wage (x) in certain MENA countries (2.)



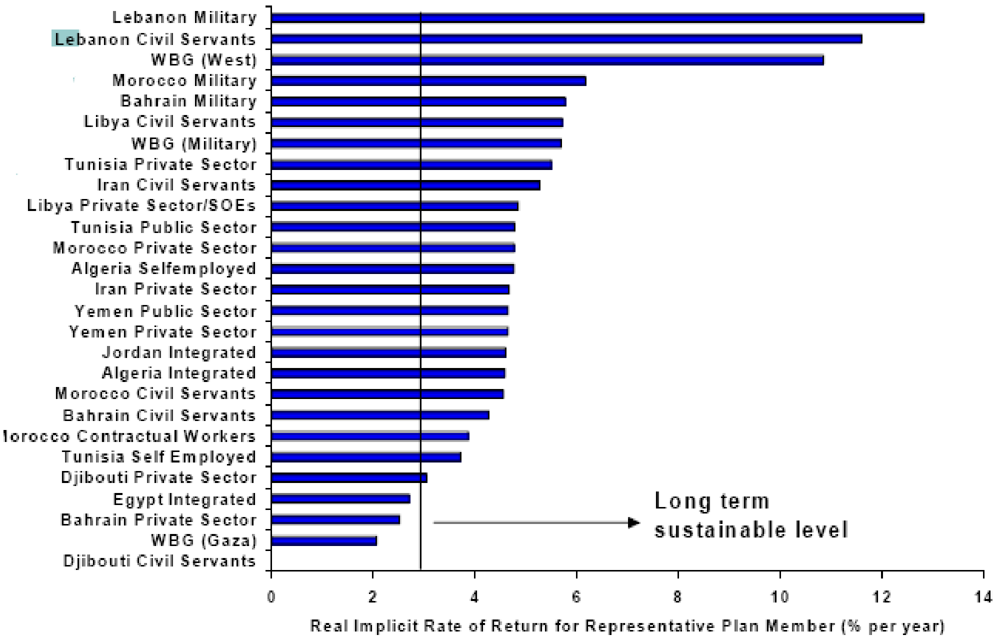
Source: Rutkowski 2007

Especially good services are provided for their retired pensioners by Yemen, Libya and up to the double of the average wage as an individual earning, Morocco.

Besides all that the implicit rate of return paid into the pension cash register is really high in most states, which means paying the pension contribution now is expressly a good investment. This only could sustain besides the certain expansion of the officially reported labour force, whereof there is not too much chance at the moment. So the systems will face the problem that the new entrants finance the result of a good investment for those, who retire now, but by the time the new generation became pensioners, there would not be an adequate coverage for their likely promising investment into their pension.

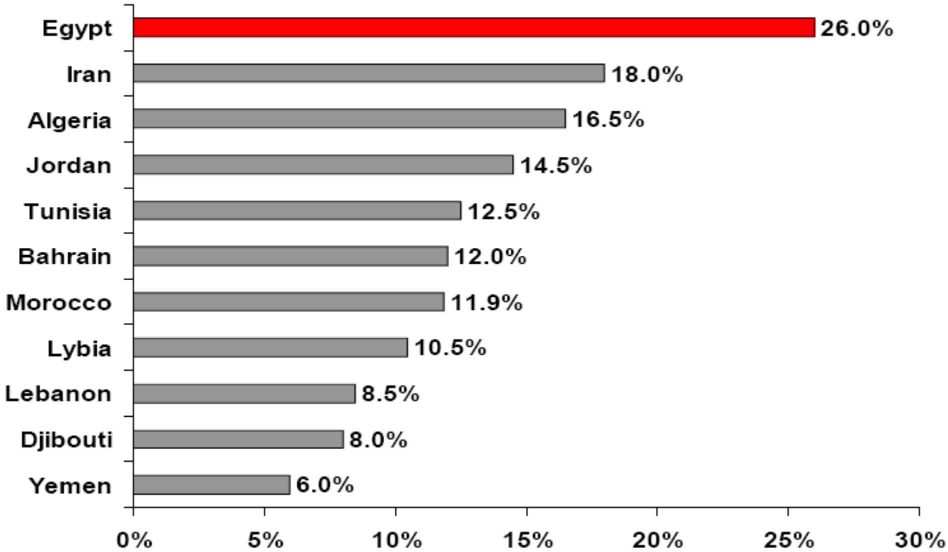
According to the academic opinion (Robalino 2005, Rutkowski 2007) parallel to the ideal growth of economy, a long-term sustainable system could be operated at about 3 percentage internal rate of return, while primarily the military service twitted state pension systems (Lebanon, Gaza Strip, Morocco, Bahrain) offer such an internal rate of return for their payers, as if their money was put into a commercial bank for 9-12% annual interest rate. The political target of the lately mentioned military systems is obvious again.

Figure 14. Average internal rates of return in the case of a representative (+) considered who retires



Source: Calculation of World Bank, 2007
(+): representative plan member is someone starting paying a contribution from the age of 25 and working until the legal regular retirement age, having sufficient service years
Offering great services, the contribution rates are not very high for a European eye, except of Egypt maybe.

Figure 15. Pension contribution rates (%) in some Arabic countries



Source: SSA/ISSA

The income that is the base of the pension calculation is usually considered progressively in the most modern pension systems, meaning that the higher for someone the years' income is before retirement, the less they count to the payment sum. In contrary the MENA countries neither don't usually even fix an income ceiling, maximizing the sum of contribution and the achievable service, nor apply a progressive calculation scheme. This brings them currently very high contributions from those who have good jobs right now, but they don't consider how much more they'll have to pay for the same people in few decades, when they retire. So pension systems are facing a high implicit debt, growing this debt from the present 30 to 80-100% of GDP of the given countries. The implicit debt rates of pension systems will grow above the financial debt of the states (Robalino 2005).

A further system-level error is the fact, that these pension systems are not using any income balancing methods for the calculation of the pension sum payable. That means they don't analyze the career progress of the applicant (and the growth of his/her salary) but just take the closing salary before retirement into account and calculate the pension amount with that, without any deflated backwards calculations. In many cases this is unfair and gives the opportunity for people to cheat. With some manipulation the final year's salaries can be "upgraded" heavily, so even a formal raise in the last moth of the salary for example can increase the pension payable for the applicant, while his/her contribution payments during the pervious years did not raise the fundaments for that.

Low retirement ages are also a system-level error. Today in MENA countries the involved women may become pensioners at the age of 55, men at 60 for sure, while special sectors enjoy even more benefits, offering earlier retirement, sometimes at the age of 45.

Management of these pension systems is expensive and not efficient enough. In most cases the infrastructure is not sufficient and the costs of administration are very high. Administrative costs reach up to 5-10% percent of the annual expenses of these pension fund services, while some countries show extreme data (Yemen: 50% of total expenses).

4. Summary statements and recommendations

Pension systems of the MENA countries let the active aged society's minor part (those eligible and covered with the service) retire very early, with a low requirement of service years. The reserves and financial capabilities of these funds are more than sufficient (however, the global financial crisis had an impact on these funds, too). The predictable effects in the near future don't paint a sunny picture about these systems. Sustainability will suffer from serious risk factors, and the structural or regulatory errors of systems will be amplified by the demographic changes. These effects will push the pension systems to unsustainability.

It would be wise starting reform programs for a long term, before crisis will be inevitable. These efforts should focus on the following:

- The possibly largest part of the economically active cohorts of society should pay contributions. An obligatory pension system should be introduced while grey / black economy has to be fought stronger.
- All workers shall pay an affordable contribution but:
- Only the promise of such sums shall be acceptable for pensioners, which can be financed. This means that basic political decision shall be made about the philosophy behind state social support systems in these countries.
- The redistribution of the contribution payment sums shall be transparent. People with larger income shall take larger commitments for the financing of the pensions of people with lower income, but contribution and return should be harmonized.
- Such parametric regulations are required which fortify the sustainability of the systems (e.g. increasing the retirement age).
- The situation of women shall be treated with a high attention.

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