

MENA REGION

The Macroeconomic and Sectoral Performance of Housing Supply Policies in Selected MENA Countries: A Comparative analysis

Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen

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Executive Summary

I. Overview.

1. This paper analyzes housing sector policies and their effects on macroeconomic and sectoral performance in a number of Middle East and North African (MNA) countries. Some of these countries confront very rapid growth in their labor forces, others are now experiencing the world's highest rates of urbanization. In such countries, the spill-over effects of housing policy on labor markets, savings behavior, factor productivity, and ultimately the quality of economic growth are important. Similarly, policies that cause housing costs to rise for the entire population can have a greater effect on the poor than do direct housing subsidy programs. In short, untangling the effects of housing policy requires a broad sectoral perspective. Accordingly, the analysis examines these broader issues, even though the focus remained on how policies could improve the situation of the poor.

II. Methodology

2. The analysis is a comparative indicator analysis of housing sector performance and policy in eight MNA countries, Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen. Four countries in the region—Djibouti, Iraq, West Bank and Gaza, and Syria—were not examined due to a lack of data. The selected countries represent a broad spectrum in terms of institutional development and the income levels in the region. Yemen, for example, is the world's seventh poorest country while Tunisia's income level is similar to that of Thailand.
3. The study focuses on a set of what might be termed expert indicators. That is to say, the data on the housing sector are not strictly empirical in the sense of the results one might observe or infer from a household survey. Rather, the data are based on the reports provided by government officials and/or local experts in answer to survey questions. The approach provides a low-cost diagnostic of the housing market situation in a country, and is of course subject to the usual caveats about the inferences that can be drawn. Nevertheless, with these caveats in mind, this approach does provide comparative perspective on how well a country is performing, as well as some strategic perspective as to what types of policies appear to matter most. This approach was used to buttress the perspectives taken in the World Bank's Housing Policy Paper (1993).

III. Findings.

4. **In most of the countries, housing affordability—rather than availability—is the central problem.** In none of the countries examined is the housing problem one of a shortage of supply of housing as a whole, although shortage may exist for certain categories of housing products (e.g., low income housing). With the exception of Yemen, and the lingering effects of the war destruction in Lebanon, a composite indicator of housing conditions, which includes measures of quantity and the quality of basic services, suggests that the region's housing stock is about what would be expected for countries at their respective development levels. In contrast, the price of housing is extremely high in five of the countries—Algeria, Iran, Lebanon, Morocco, and Yemen. Our indicators suggest that the affordability problem is largely the result of housing and land supply policies. In addition, inadequate housing supply relative to increasing demand (e.g., Algeria) and constrained flexibility with which the housing stock is used contribute to high housing prices and low levels affordability. Thus, these policies constrain the functioning of the housing market so that the inexorable demographic demands for housing already in process are reflected largely in house price

increases rather than increased production. In short, in most of the countries examined in this study the main problem by and large is not the quantity of housing production, but by whom and for whom housing is produced and how it is distributed.

5. **Demand by low-income groups is left to the informal sector.** The high cost of housing is not the only housing problem for the countries analyzed. Informal settlements are another consequence of the affordability issue. In several countries demand by lower income groups is reflected in squatter settlements and un-serviced peripheral neighborhoods. This measure of exclusion from formal housing services appears to be a growing concern in countries like Algeria, Morocco, Iran and Yemen, as there are strong signals that informal settlement ratios are increasing. The ratio of informal settlements is already very high in Egypt when compared with other developing countries in the world. In Tunisia, although the slum problem has been solved through persistent slum upgrading programs over the last two decades, informal settlements still comprise one fourth of the housing stock.
6. **The benefits from addressing the housing affordability problem go well beyond improving the functioning of the housing market.** Housing market constraints not only affect housing conditions. They also have implications for unemployment rates—which are already high before a coming surge in the growth in the labor force— as well as the efficiency with which capital is used. It is not a question of a shortage of housing capital but it is, rather, that the capital is quite expensive. Indeed, a recent IMF analysis, from Dhonte et al. (2000), suggests that without fundamental changes in the efficiency with which capital is used in these countries that it will be impossible to make significant progress in improving the unemployment situation. We examine a number of ways in which improvements in the functioning of the housing market can improve capital efficiency, and correspondingly, the economy.
7. For example, we estimate that the deadweight efficiency losses of regulatory/land policies in Morocco may cost as much as 1 percent of GDP. Similarly, we provide illustrative estimates of the effects that current policies have on a variety of other macro-economic indicators, tracing out, for example, the effects these policies can have on overall poverty reduction. While each of the estimated effects must be qualified, cumulatively, they are suggestive of the sector's having significant distorting effects on the functioning of the economy. We conclude that while effective housing programs, such as slum upgrading programs, can certainly be mounted, in countries with severe affordability problems it will be impossible to scale up such efforts without first addressing these broader issues.
8. **The key affordability problem stems from poorly defined public and private roles in housing and land markets.** This problem is particularly acute in countries with secondary cities experiencing extraordinary population growth rates, and it represents an important constraint on both the housing sector and the economy. The issue is how this growth can be better accommodated by both the public and private sectors. Considerably more work needs to be done to understand how these constraints operate across the different countries, and to give these secondary cities more demand-responsive autonomy. Nevertheless, international experience indicates that three aspects of a more delimited public role are clear.
9. **Land Development.** The land development process is inherently risky, and rarely is the public sector well placed to assume a major share of these risks. Public control and ownership of land usually results in these risks being borne in such a way that land is supplied where there is less demand for it, the housing that is built is not responsive to the demands for land use, and the process conveys non-transparent subsidies, often unintentionally, to middle and

upper income households rather than the poor. All of these problems cause land and correspondingly house prices to be higher than they otherwise would be. Public land ownership accounts for a significant share of urban land in four of the countries in our sample, Iran, Algeria, Morocco and Egypt, and in the former two of these countries, for which we have data, land development costs are high.

10. But besides affecting the cost of housing, land use regulations can also affect the spatial efficiency with which real estate is used. For example, while the built up structure of Teheran follows that of most cities around the world—denser towards the city center and less dense as one moves away from the center—the land price gradient does not. In contrast to the pattern observed almost everywhere, prices increase as distance from the city center increases. This price pattern suggests an extremely distorted housing market, one that leads to inefficient uses and spatial development of the entire fixed capital stock. While the public role in land development could be improved in all 8 of the countries, in some of them land use regulations is a serious problem, namely: Algeria, Morocco, Egypt, and Iran.
11. **Housing Production and Ownership.** Public sector role in land development remains dominant in some countries in the region (e.g., Algeria and to a lesser extent in Morocco). Besides public roles in land development, many countries in the developing world, and particularly those following the economic model of the Former Soviet Union, relied on the **public production** of housing. This system of supply is even less effective than is the public land development process. At present it appears that among the countries in our sample, only Algeria is intensively following this approach. It should be noted that due largely to its inefficiency this approach has been abandoned throughout the Former Soviet Union and the reforming countries of Eastern Europe. Similarly, outside of Egypt and Algeria, public ownership of the housing stock appears to be at relatively modest levels, and rent control restrictions are becoming less binding, except perhaps for Jordan. Evidence from developing countries where public ownership is high, or rent controls extensive is that the housing stock is under-maintained and run down.
12. **Urban Location Policies.** Central government support for households and/or industries to locate in particular cities has long been followed throughout the developing world, and extensive Bank research has shown it to be ineffective. Recent work by Henderson (2000), among others, indicates that these policies can be sufficiently costly that they are detrimental for growth and contribute to corruption. Iran and Algeria are still pursuing such policies to locate population in cities other than the capital. On the other hand, Yemen and Egypt appear to be encouraging families, at least implicitly, to locate in the capital city rather than in secondary cities. Algeria's current urbanization pattern is consistent with that of a formerly rigidly planned socialist economy, while Egypt's follows the kind of pattern that often emerges from closed inward-looking economies that are highly dependent on foreign aid. Both patterns, when as extreme as they are in these countries, can reduce growth. In short, locational choices for households and firms are rarely effectively made by the public sector.
13. **Housing finance reforms are important and could bring broader economic gains, notably by encouraging savings. However, they must be properly sequenced in an overall housing reform agenda.** Some of the countries in the sample have already developed the institutional setting for effective development of housing finance. In Jordan, housing finance has developed extensively, beyond 10 percent of GDP. In Tunisia, Lebanon, and Morocco, housing finance has developed beyond the initial stages, but still has a long way to go. Efforts in housing finance in those countries can be sequenced parallel with developments in other components of the housing sector such as subsidies and land development. In places

like Algeria and Iran, which have much less developed financial markets and very high house prices, basic concerns such as land development and private sector production should be given emphasis at the same time housing finance is liberalized and developed.

IV. Policy Recommendations.

14. Many governments in the region are under pressure to make up for a perceived housing shortfall. On the one hand, this pressure is understandable because there is a significant shortfall in production in most of the countries in the sample. However, based on our indicators, we conclude that the provision of subsidized housing and/or subsidized financing and production will not effectively address this problem. Rather, increased attention to broader policy reforms are essential if the sector is to address the housing problems of the poor, as well as the deleterious effects that the sector now has on the economy. The main policy areas suggested for improvement are as follows:

1. Making Factor Markets More Responsive

- **Extensive public ownership of land** and public sector dominance on land development often ends up in untargeted subsidies, scarcity of serviced land, and increases in land prices. In Algeria and Iran for example, where public ownership of land is the cornerstone of housing policy, land supply is either far behind the need, and land is used inefficiently due to large and untargeted land subsidies.
- **Reliance on government housing agencies to develop land and housing** for lower income groups had led to inefficiencies, and a drain on resources from the governments' overall development efforts, and undermined the potential role of the private sector. Responsibilities and tasks of such housing agencies need to be re-aligned with the countries' objectives of promoting public-private partnership to increase the efficiency of use of public resources. Auctioning of public land and privatization of housing production companies should be high priorities in Algeria, and Iran.
- **Property rights** need to be made clear and **titling systems** should be revised to make them simple and operational. Establishing clear property rights and a titling system are among the primary steps to facilitate functioning of land markets, and to involve the private sector in land development and its finance. Furthermore, clear property rights would provide people with a sense of security, and thus help to mobilize private savings. In several MNA countries, e.g. Yemen and Morocco, not all properties and transactions are registered. This is partly due to long and cumbersome procedures and/or tax burdens that people try to avoid. On the other hand, in many cases people do not have clear property rights, even if they want to register their property. Should the majority of land acquisition and transfer practices and tenure systems not fit into the existing legal system, the regulatory and policy frameworks need to be adjusted to incorporate those practices. Systems need not to be restricted to freehold titles, but can be flexible. For example, protected use rights can be gradually upgraded to full ownership rights. Egypt's experience with intermediate recognition of use rights through *hekr* (rent) system and hand claim taxes, which help the situation of the poor, can be useful for other countries in the region.
- **Subsidies need to be enshrined in broader sectoral reforms.** The two most prevalent forms of subsidies in our sample countries are interest rate subsidies and land subsidies. In general, and particularly at the level of income of most of the countries in our sample, neither is an effective way to deliver resources to the poor. Interest subsidies lack transparency, often do not reach the

target groups, and have adverse side effects on the economy by comprising significant burdens on public resources. They have been found to be regressive, as in the case in Morocco, Egypt, and Algeria. Similarly, subsidies to public developers through free access to land, or at below market prices, and subsidies embedded in below market price of lots for households and cooperatives, are common throughout the sample, and they are rarely effective, and generally regressive. Interest rate subsidies need to be eliminated, and replaced with targeted, upfront subsidies – such as housing allowances. By the same token, land subsidies to public developers need to be removed, and only if necessary land subsidies should be provided to households in a transparent and targeted manner.

- **Housing finance is an important part of both financial and real estate sector development.** Importantly, however, in order to have an effective impact on access to housing by the middle and low-income populations, reforms in this area must be accompanied by policy reforms in the real sector, in particular land and subsidy reforms.
15. **The Bank's role** in the housing sector in the sample countries has not been an intensive one, but it has nevertheless been a strong one. Over the past decade ten housing projects were completed, and 90 percent of them had a satisfactory outcome. This lending amounts to about one-third of the Bank's urban lending in the countries which also had a 90 percent satisfactory outcome rate compared to a 69 percent satisfactory outcome level for all Bank projects in the countries during this time period.
 16. One way to assess the scope for further cooperation is to consider the various topics examined in the present study, and then to suggest whether a particular type of intervention appears to be appropriate for a specific country, based on analysis of the housing sector performance.
 17. **Further analysis of the housing sector** is of the highest priority in Lebanon (in view of the lingering effects of war), Jordan and Yemen. However, sector work has effectively already been done in Iran, Tunisia and Morocco. In Iran, an Adjustment Lending Program has just been approved, following sector work that identified a range of policies which adversely affect both the sector and the economy. In Morocco, an extensive reform program for the sector is already underway. It includes new housing finance instruments, changes in the subsidy system, reform of land development regulations, as well as an ambitious nationwide program of slum upgrading. The Bank has provided technical assistance in the past and is currently preparing a sector adjustment loan to support the government in the implementation of the reforms. If a similar shared view could be developed with Algeria and Yemen, there would be substantial gains from developing a housing reform agenda.
 18. **Housing finance interventions** would appear to be of high value in Egypt, Lebanon, Tunisia, Morocco and Jordan where the Bank can help to build upon more effective housing market policies, stable macro environments, and successful past interventions. In Tunisia the housing finance components of the Tunisia Urban III and V projects, and in Jordan the Housing and Urban Development project which was completed recently are the examples of successful projects that the Bank supported. In Egypt also the stable macro-economic environment, and in Lebanon the regulatory environment for private sector operations, are definitely advantages for housing finance efforts. Housing finance programs would be premature in Yemen, where more basic sectoral concerns apply.

19. **Land management** to ensure responsive land supply is a highest priority for Algeria and Iran together with sector work. Land management appears to be a priority for Morocco to ensure more responsive land supply. This area will be included in the package of reforms which is currently being implemented in the country. In Egypt and Yemen land management also appears to be a second priority.
20. **Subsidy reforms** to ensure targeted subsidies appear to be first priorities for Algeria, Egypt and Iran, where they should be carried out in coordination with land management reforms. They are also recommended for Tunisia and Jordan, but as secondary priorities. In the case of Yemen, it is not indicated as a priority, since sector work is required to better understand the bottlenecks, before getting involved in subsidy reforms.
21. **Slum upgrading** policies and programs to improve the living conditions of poor neighborhoods appear to be a major priority in all the countries of the region, but especially in Iran, Yemen, Morocco, and Egypt. Experiences of Jordan and Tunisia in slum upgrading would be useful for the other countries in the region. Tunisia and Jordan have implemented successful long-term policies for slum upgrading and these countries seem to be now on the right track to solving their slum problems, without further Bank assistance.

Section 1

Overview

This paper analyzes the performance of the housing sector in a number of Middle East and North African (MNA) countries. It was originally intended to be a comparative indicator analysis of the access of the poor to housing in these countries, and the policies designed to address this access. However, as the analysis proceeded, it became increasingly clear that housing policies in these countries exert significant effects on the functioning of the overall economies. It also became clear that these broader housing sector policies have a much greater effect on the situation of the poor than do the direct poverty-related policies.

In countries with some of the fastest growing labor forces in the world, and with some of the world's highest rates of urbanization, such as those in our study, the spill-over effects of housing policy on labor markets, savings behavior, factor productivity, and ultimately economic growth are important, even if difficult to measure with great precision. Similarly, policies that cause housing costs to rise significantly for the entire population can have a much greater effect on the poor than does, for instance, a relatively small housing subsidy program. In short, untangling the effects of housing policy on the poor requires a broad sectoral perspective. Accordingly, the scope of the analysis expanded to consider these broader issues, even if the focus continued to remain on how policies could be designed to improve the situation of the poor.

The structure of the analysis is as follows: after having briefly discussed the methodology used and explained the countries that were subjected to analysis in the following section, we present the macro-economic linkages of the housing sector in section 3. Then in section 4, the main findings of the study, primarily low levels of affordability and related problems, are presented. The findings on market performances, i.e., supply and demand related causes of market failures, are presented in section 5. The final section presents recommendations. It also makes suggestions on how the Bank could assist in the design and implementation of reforms and policies for improved housing markets.

Section 2

Methodology

The Countries Analyzed. The MNA region includes 20 countries, 12 of which are active or potential borrowers of the Bank—Algeria, Djibouti, Egypt, Iran, Iraq, Jordan, Lebanon, Morocco, Syria, West Bank and Gaza, Tunisia and Yemen—with per capita incomes that in 2001 range from \$812 PPP (Yemen) to about \$6,800 (Tunisia). In addition, 8 relatively high-income countries—Bahrain, Kuwait, Libya, Malta, Oman, Qatar, Saudi Arabia, and United Arab Emirates are not active borrowers but rely on non-lending services. Our analysis focuses on 8 of the 12 borrowing countries. The four —Djibouti, Iraq, West Bank and Gaza, and Syria—were not examined due to lack of data on both the housing sector and more broadly on the economy. The selected countries represent a broad spectrum in terms of institutional development and the income levels in the region (also see Arab Human Development Report, UN 2002). Yemen, for example, is the world's seventh poorest country while Tunisia's income level is similar to that of Thailand.

Approach Taken. The study is a comparative indicator analysis of housing sector performance and policies. It focuses on a set of what might be termed expert indicators. By that it is meant that the data on the housing sector is not strictly empirical in the sense of the results one might observe or infer from a household survey. Rather, it is based on the reports provided by either government officials and/or local experts in answer to survey questions.¹ Where possible, the observations also rely on data collected by the World Bank-UN Housing Indicators Program. The approach is in many ways a low-cost, comparative diagnostic of the housing market situation in a country. It does not allow elasticity estimates of various behaviors to be estimated. But, subject to more than usual caveats about the inferences that can be drawn from data, it does provide a comparative perspective on how a country is performing, as well as some strategic perspective as to what types of policies appear to matter most. This approach was used to buttress the perspectives taken in the World Bank's Housing Policy Paper (1993), in a number of World Bank studies of housing sector performance in various countries, such as Brazil, Iran, and Slovenia, and subsequently elaborated on in a book by Angel (2000) and a number of articles by Malpezzi and Mayo (1999) and (2000), and Buckley and Tsenkova (2001). Every attempt was made to assure as much consistency of the observations as possible. All sources and the dates of the observations are noted.

We also undertook a desk review of available data and reports for the projects and sector work as well as academic studies. In the end, we believe we have credible data that provide a rich overview of comparative market conditions in the regions. Nevertheless, such markets are by definition highly idiosyncratic. Therefore, this study is in no way a substitute for the kinds of sector work needed to fully understand how markets operate in the different countries. It is, however, suggestive of where and what issues those sorts of sector work could be focused up on.

Different parts of our analysis are also presented in separate annexes. Annex 1 reviews the quantitative dimensions of housing demand. The roles that demographics, urbanization, financial incentives and economic growth play are emphasized.

Annex 2 considers housing supply factors: how much housing is available, and of what condition. It also looks at the ways that policies affect both the flexibility and responsiveness of the existing stock of housing and the costs and availability of important factor inputs such as land and finance. Finally, it presents a synthesis of both housing market conditions and policies in each country.

Annex 3 uses the data in Annexes 1 and 2 to draw out broader, economy-wide implications of various housing policies. It focuses on the effects that housing policy can have on: economic efficiency, factor productivity, savings, growth and the quality of growth, by which is meant how does growth affect poverty reduction.

Annex 4 provides a country-by-country list of the indicators used for the study.

¹ A questionnaire was prepared to update and expand our knowledge on housing supply policies and some basic housing indicators. The questionnaire was sent to the concerned Ministries, with a letter of introduction addressed to the ministers. Local consultants were also hired to collect data and work with local officials to gather information. Since a comprehensive housing sector work has recently been completed in Iran, and the study benefited from that work, no questionnaire was sent to Iran.

Section 3

Macro-economic Linkages of the Housing Sector

3.1 Introduction

A preliminary glance shows that the housing sectors in most countries perform inadequately. Price of housing is extremely high in five of the countries—Algeria, Iran, Lebanon, Morocco, and Yemen. More precisely the house prices in those countries are far above the levels that would be expected at their levels of income. For instances, house price to income ratio is close to 10 in Iran, indicating that a middle income family needs to save its annual income for more than 9 years to be able to buy an average housing unit in big cities like Tehran or Tebriz. By the same token, a middle income family needs to save all its annual income for around 9 years in Morocco, Lebanon and Algeria to afford an average dwelling in big cities. Apparently inexorable demographic demand for housing in the region is reflected largely in house price increases rather than in increased housing production. Although housing subsidies in the form of land and interest rates are important components of housing strategies in most countries in the region, significant portions of those subsidies are mis-targeted, particularly in Algeria, Iran and Morocco. Furthermore, while demand by higher income groups is satisfied, demand by lower and even middle-income groups is left to informal sector. Even in Tunisia for example, where housing supply almost meets the demand, there is inadequate supply for lower income groups, and under-serviced settlements comprise one fourth of the housing stock in Tunisian cities. In Egypt ratio of informal settlements is significantly higher than other countries at similar levels of income. There are signals that informal housing stock increases in Morocco, Algeria, Iran and Yemen.

The housing sector produces one of the longest-lived goods in the economy, and housing is the prime investment made by most households in most countries. Therefore, changes in real incomes and savings, and inflation, have impacts on the housing demand and its supply². By the same token, stakes of adopting appropriate strategies for the housing sector are considerable. Housing investments typically account for 2 to 8 percent of gross national product (GNP) and housing services account for an additional 5 to 10 percent of GNP (World Bank 1993). Annual spending on housing accounts for between 7 and 18 percent of GNP (op. cit.).

These figures do not, however, completely reflect the ways in which the performance of the housing sector affects the broader economy. The housing sector is connected to the broader economy through the real, fiscal and financial sides of the economy. As the housing policy paper of the World Bank (1993) summarizes, housing investments, employment generated by the housing sector, and costs are the real effects that the housing sector has on the economy. Financial effects are those associated with the financing of housing, which contributes to the depth of the finance sector, and savings. Taxation and subsidization of housing are among the fiscal effects of the housing sector on the economy.

Within this general framework, it appears that the housing sector has a predominantly significant role in MNA, due to particular circumstances of the region: (i) increasing population at working age, and the problem of very high unemployment experienced in many countries; (ii) role of housing as an economic refugee for private savings and remittances, particularly in oil producing and high inflationary economies. Although there are several real, financial, and fiscal circuits through which housing sector performances affect macro-economic performance, they are difficult to present quantitatively due to lack of data.

² See also the World Bank report on “Urban Housing and Land Market Reforms in Transition Countries”, June, 2002, by Buckley, Ellis and Hamilton.

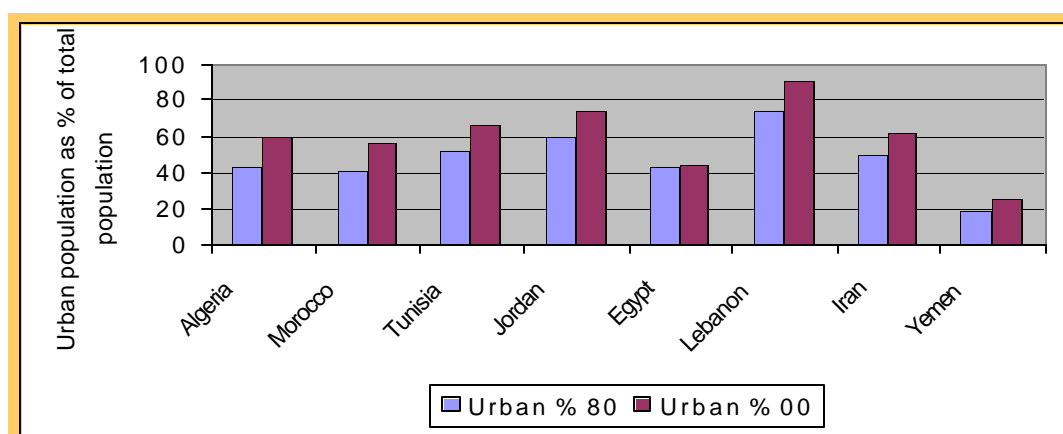
In this section we examine:

- (i) the impacts of housing sector performances on employment, and capital use efficiency, with the objective of demonstrating the impact of better functioning of housing sector on economic growth; and
- (ii) the impacts of house prices on poverty reduction.

3.2 Demography and urbanization

The population of the region has grown rapidly over the past few decades, faster than all regions of the world, except sub-Saharan Africa. Increase in population has been accompanied with high rates of urbanization. Except Egypt and Yemen, all the countries in the region are highly urbanized and have experienced significant growth in urban populations since 1980s (figure 1). Furthermore, projections indicate that compared to 1995 censuses, size of urban populations will be doubled by 2025 (table 1).

Figure 1. Urban population increase over the last two decades



Source: WDI (2002)

Table 1: Projected urban population in some MENA countries

	Urban Population		Share of Urban Population	
	Actual (1995)	Projected (2005)	Actual (1995)	Projected (2005)
	In millions		In percent	
Algeria	15.6	33.7	56	74
Egypt	28.2	60.5	45	62
Jordan	3.9	10.1	71	84
Morocco	13.1	26.9	48	66
Tunisia	5.1	9.8	57	74

Source : Erbas and Nothaft – IMF Working Paper 2002

As a consequence of demographic increases, several of the MNA countries have experienced fast growth in their labor forces – i.e., population between age 20 and 29 –over the years between 1990 and 2000. The rate of growth was 30% in Algeria, 35% in Iran, 48% in Lebanon, 68% in Jordan, and 80% in Yemen over the last decade, and the same trend is expected to continue in the next decade in several of the MNA countries. While growth in working age population is high, unemployment is one of the most severe problems of the region, reaching 30% in Algeria, 15% and 14% in Iran and Lebanon respectively. Underemployment is estimated to be around 25% in Yemen. IMF projections suggest that over the next 15 years employment in MNA countries will need to rise on average by an

astounding compound growth rate of over 4%³. Such employment growth requirements are much higher than those registered in the fastest job-creating regions of East Asia and the Caribbean and Latin America, where employment grew over the period 1990-97 on average by 2.3 % and 2.9% per annum respectively (IMF working paper 2002 by Erbas and Nothaft).

3.3. Unemployment and capital use inefficiency

Unemployment is one of the major challenges of MNA countries⁴ at present, and, in view of the coming surge in growth of the working force (see table 3), it is expected to be an even bigger problem in the future. Furthermore, as also shown in table 3, efficiency of capital use seems to be low as shown by the high capital output ratios⁵ for many of the countries examined. This result is consistent with our findings for the housing sector, namely that the problem is not a shortage of housing capital, but rather, the capital is quite expensive. Indeed, without substantial improvement in the efficiency of capital utilization, (i.e., reduction in capital output ratio), it will be impossible to make significant progress in improving the unemployment situation (Dhonte et al, 2000). In this regard, efforts to reduce capital costs in housing production, and therefore supply more affordable housing, would contribute to job creation. For example, if the very expensive housing in Algeria could be made as affordable as it is in Egypt, we estimate that a lower capital-output ratio will result in a 10% productivity gain, which in turn could help to create 160,000 new jobs.

Table 2. Some unpleasant macroeconomic arithmetic

	Algeria	Egypt	Iran	Jordan	Lebanon	Morocco	Tunisia	Yemen
Unemployment rate*	28	12	14	15	13	13	15	30
ICOR**	12.5	3.7	56.9	4.3	--	5.5	6.4	-
Growth of population aged between 20 and 29 (%) 1990-2000***	35	28	37	67	49	25	21	82

* For Algeria, Egypt, Iran, Jordan, Morocco and Tunisia, source is IMF – Pierre Dhonte, Rina Bhattacharya, and Tarik Yousef, *Demographic transition in the Middle East: Implications for Growth, Employment, and Housing*, 2000; for Yemen, source is PRSP; for Lebanon, source is USJ survey conducted during the period Oct.-Nov. 2001, on 18,243 households. ** 1973-1994 Dhonte, Bhattacharya, Tousef (2000), ***: US Bureau of Census

In Morocco limited access to land due to considerable public ownership (it is estimated that at between 20 to 30 percent of urban land is owned by various public entities, including central government⁶, local governments and *habous*), and rigid urban development regulations are the prime impediments in the supply of serviced land, and they give rise to increases in the price of

³ See Erbas and Notaft (2002), and also Dhonte, Battacharya, and Yousef (2000).

⁴ Also see Arab Human Development Report, UN (2002).

⁵ A capital-output ratio measures the amount of capital needed to produce 1 unit of output. An incremental capital-output ratio (ICOR) is a change in this ratio. It measures the percentage of capital change to obtain 1 percent increase in growth. Higher ratios reflect major productivity problems, and associated with lower growth. A typical measure of ICOR ranges from 3 or 5.

⁶ Updated figures of land ownership are not available yet. Land and property information system (SIFI) is now being developed and expected to become operational within five years. According to the information provided by Moroccan authorities, about 15% of the urban land is owned by the central government, yet the amounts of land owned by local authorities and other public agencies and Habous are not known exactly.

land, which is a major production factor⁷. We estimate that the efficiency losses due to such regulatory/land policies in Morocco may cost more than 1 percent of GDP (see Annex 3)⁸.

In effect, what these results point to is a situation where distortions in the housing market have adverse effects on the macro-economy which, in turn, have additional adverse effects on the housing sector. Cumulatively, this vicious circle can have quite significant effects on welfare and growth. And the poor are the groups most affected by such adverse impacts. As we describe further in Annex 2, a composite measure of the effectiveness of policy appears to be a good predictor of house price to income ratios.

3.4 Poverty Reduction

Higher house prices increase the amount of income that the poor need to pay for housing services, and consequently lower disposable income. Existing household surveys in the MENA countries (such as the LSMS surveys) indicate that the poorest segments of the population spend between 30 and 40 % of their income on housing.⁹ Given the high house price to income ratios (depicted in Figure 5), this result is not surprising. As documented by Moser (1996), housing is not only a major consumption item in household budgets, but it is an important economic asset as well, particularly for low-income groups. These figures and findings imply that reduction in housing costs would result in reduction in poverty. Figure 2 provides a summary measure of these cumulative effects. It compares the countries' poverty reduction elasticity with respect to house price to income ratios¹⁰. At first glance, it may seem rather extreme to posit such a strong relationship between housing affordability and the elasticity of poverty reduction. However, considering the fact that housing is an important economic asset for the poor, and constitutes the largest consumption item, it is not surprising indeed to find such a strong positive relation between reduction in house prices and poverty.

One concrete example: suppose that over the next five years Morocco could reduce its house price-to-income ratio from its current level to that of Tunisia's, i.e., from 9.2 to 5.0. Suppose also that this improvement in the functioning of the housing market causes the estimated shortfall in housing production in Morocco to be reduced so that it is more like the Tunisian situation where production levels are approximately equal to demand. If this shifts to a situation in which demand is reflected in higher levels of output rather than prices, caused Morocco's poverty elasticity to increase to Tunisia's level, then over the next five years, the decline in the number in poverty in Morocco would be an additional 170,000 people.¹¹

⁷ Particularly onerous requirements are the amount of land that has to be reserved for community facilities and the width of public rights of way for the road network, standards for land coverage (LCR) and floor area ratios (FAR), which reduce the area of developable land to an average of 40% of the site.

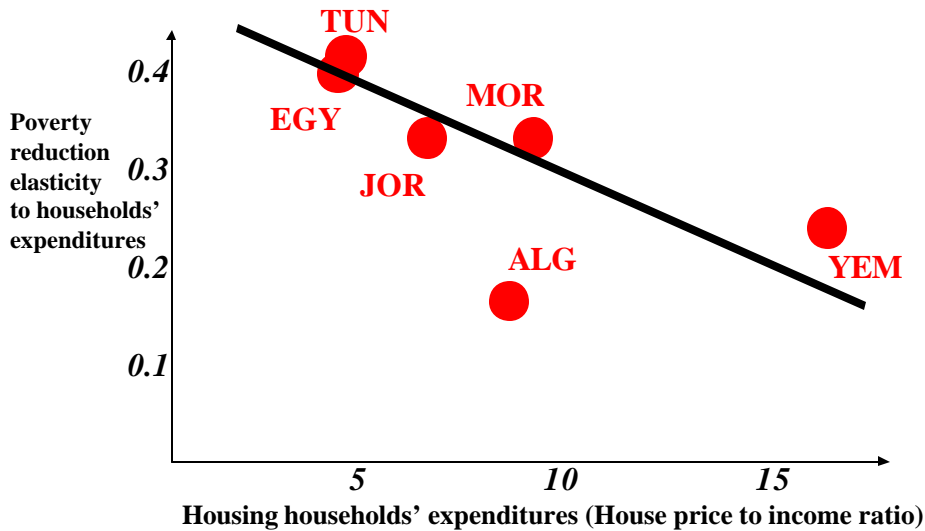
⁸ While each of these different measures must be qualified in different ways, cumulatively they are indicators of distortions in sectoral policies having significant adverse effects on the functioning of the economy. There is also other empirical evidence that in other countries housing policies have had effects of the magnitude we find here (Malpezzi and Mayo 1997).

⁹ According to *Voices of the Poor* (2000), this share would often reach 50 percent.

¹⁰ The elasticity of poverty reduction with respect to income growth is a measure of the effect that growth has on the number of people in poverty. As Adams and Page (2001) show, over the 1980s the region had one of the strongest poverty reduction performances in the world, and correspondingly, has the lowest overall poverty rate.

¹¹ From Adams and Page data, the elasticities of poverty reduction to income in Morocco and Tunisia are 0.33 and 0.41 respectively. We then assume that lowering house prices would result in a corresponding increase in the poverty elasticity. We also assume that Morocco would sustain an annual growth of 5% for household expenditures for the next 5 years, and that Adams and Page's estimation of the poverty headcount index in Morocco (19% in 1999) is accurate.

Figure 2. Housing constraints and the quality of growth



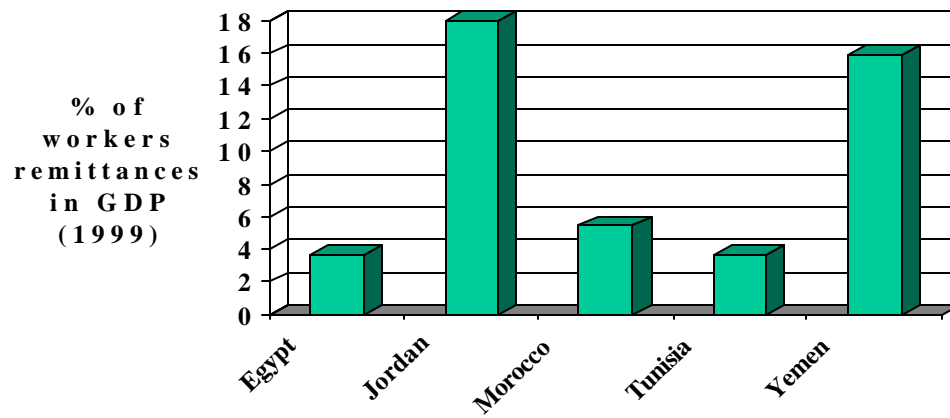
Sources: Adams and Page, 2001, and World Development Indicators

Moreover, housing investments are largely produced by low-skill, low-income workers, i.e., also the poor. Thus, when housing demand results in increases in house prices rather than in output, it has two effects. First, it prices the poor out of the housing market, but second, and perhaps more important, it also does not let their job opportunities grow. When unemployment is at such high levels, limited job opportunities for low skill workers can have significant effects on the quality of pro-poor growth (as depicted in Figure 2)¹². The figure is more illustrative than definitive. We do not, for instance, have estimates of either the elasticity of supply of housing in these countries or the effects that housing policy can have on that elasticity. In addition, our measures of affordability are “expert opinions,” not empirical observations. Finally, while we have direct estimates of the poverty elasticity of growth for some countries, based on Adams and Page (2001), we had to infer estimates for some of the other countries.

In order to be able to appreciate the impact of house prices on poverty more comprehensively, first, the role that remittances play in reducing poverty in the region, and second, the ratio of remittances flow into housing, need to be considered. Adams (1991) has shown that the large volume of remittances has had a constructive effect on poverty reduction in Egypt. In fact, volume of remittances in Egypt are at similar levels with Tunisia and Morocco, and in Jordan and Yemen they are a lot more higher than in Egypt (figure 3). Not only have a great deal of the remittances gone to the poor, but the poor have frequently used these funds to finance housing investments (op. cit.).

¹² Elasticities are calculated using poverty headcounts and households expenditures figures from World Bank - Richard Adams and John Page, *Holding the Line: Poverty Reduction in the Middle East and North Africa, 1970-2000*; for Jordan, Morocco and Tunisia, elasticity is based on total population while for Egypt, elasticity is based on urban population figures; for Yemen and Algeria, we used GNI per capita (Atlas method, current USD) as a proxy for households expenditures.

Figure 3. Foreign remittances as a share of GDP



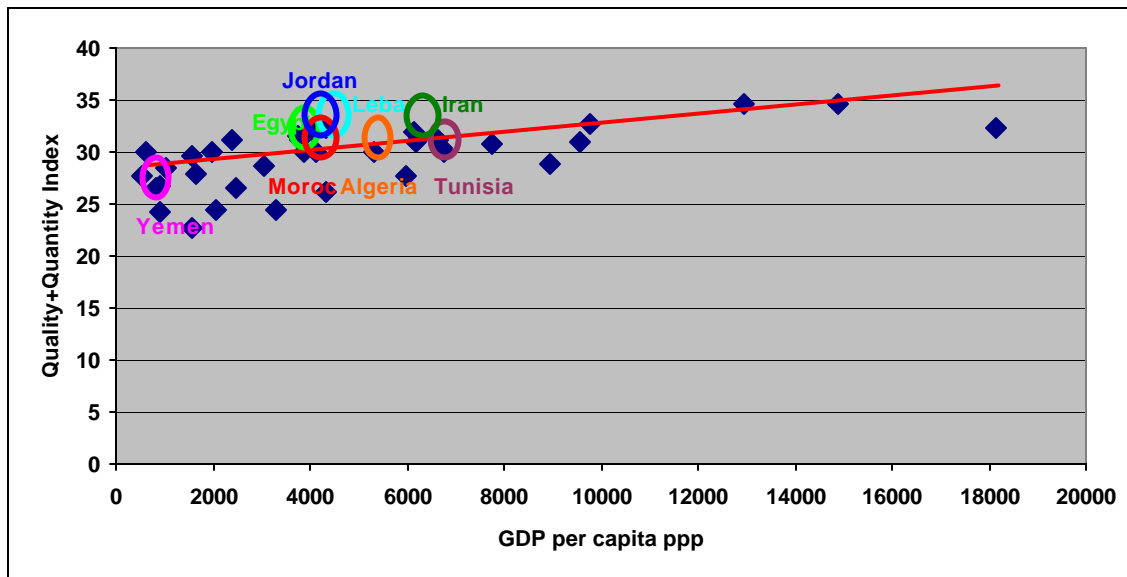
Source: World Development Indicators

Section 4 The Problem of Affordability

4.1. The affordability problem

Analyses of the housing sectors shows that in most of the MNA countries, housing affordability rather than availability of the stock is the central problem. When existing housing stock output is evaluated in terms of the housing space per capita (as an indicator of the quantity of the housing output) and service network connections (as an indicator of the quality of housing stock output), in none of the countries examined in the MENA region does shortage of overall availability of housing appear to be a problem. This figure provides a measure of the amount of floor space per capita available multiplied by the percentage of that space which has both water and sanitation,¹³ and compares this composite outcome measure with per capita income for the most recent available year.¹⁴ The solid line represents the trend line for a sample of 35 countries.¹⁵ Not surprisingly, there is a mild positive relationship. As shown by Figure 4, in none of the countries examined is the housing problem one of a shortage of overall supply of housing. The housing stock in the region is relatively strong. The composite indicator suggests that the region's stock is similar to or better than what would be expected for countries at their respective development levels.

Figure 4. Conditions of the housing stock (space and services) in MENA and comparators



Source: Housing Indicators UN, WB 1993; WHO 2000; and WDI 2002

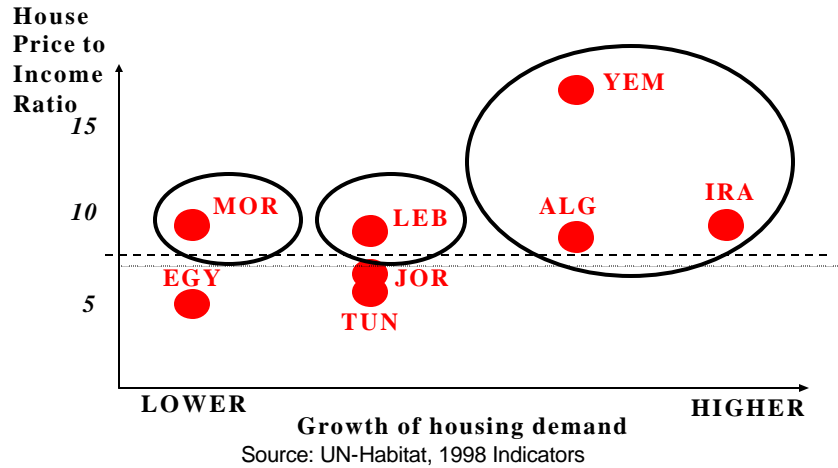
¹³ See Annex 2 on housing supply for a fuller presentation of this and other measures of the supply of housing.

¹⁴ Space per capita was taken as an indicator of the quantity of housing. Most recent comparable data comes from UN-WB Housing Indicators 1993. Regarding the quality of housing stock, service availability, i.e., water and sewerage, was considered as an indicator, and WHO 2000 data was used. Then a composite index: $((0.4 * \text{space per capita} + 0.6 * \text{service availability}) / 2)$ was established to measure the quality and quantity of housing stock.

¹⁵ Countries included in the analysis: Algeria, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, Yemen, Turkey, Ecuador, Colombia, Jamaica, Tanzania, Malawi, Bangladesh, Madagascar, Nigeria, India, Kenya, China, Pakistan, Ghana, Indonesia, Zimbabwe, Senegal, Philippines, Cote d'Ivoire, Thailand, Chile, Mexico, South Africa, Venezuela, Brazil.

On the other hand, when affordability is examined through house prices to income ratio, we see that in several of the countries in the sample the price of housing is extremely high, and affordability levels are low (Figure 5). Only 3 (Egypt, Tunisia and Jordan) of the 8 countries in the sample do not have very expensive housing.

Figure 5. Housing affordability and housing demand



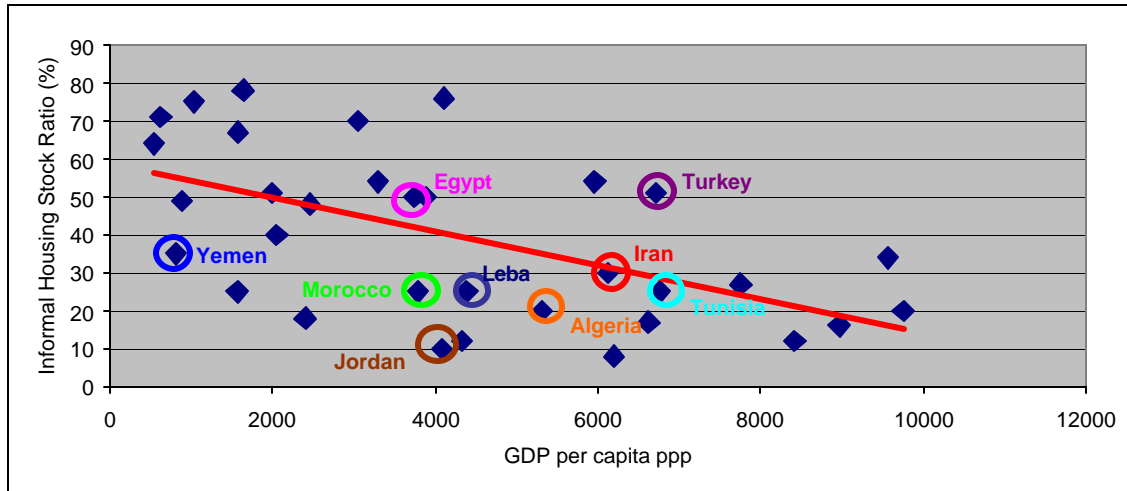
Thus, the affordability problem does not appear to be driven by scarcity as a whole, but it is more likely that scarcity exist for certain segments of the housing market (e.g., low-income housing). Further detailed analysis of qualitative data/information confirmed that there is oversupply for upper and upper-middle income groups and undersupply for lower income segments in several of the countries of the sample, especially in Iran, Egypt, Morocco, Lebanon Tunisia and Algeria. This is largely the result of a variety of housing and land market policies which constrain the functioning of the housing markets. When these constraints are combined with the inexorable demographic demands for housing faced by these countries, the result has largely been house price increases rather than increased production. Because of the supply constraints, some countries, such as Morocco, confront higher prices than do other countries that face more demand pressure such as Jordan and Tunisia (Figure 5). To give further perspective on the data presented in Figure 5, it is worth mentioning that in a typical OECD country, the price-to-income ratio is similar to or lower than that observed in Tunisia and Egypt, even under circumstances when these countries have been under short-term demographic pressures. When the price and output measures of Figures 1 and 2 are considered together, it appears that price, rather than quantity, is the most important problem in the functioning of the housing market.

4.2. Low-income housing demand is left to the informal sector

Another consequence of the affordability issue is the growth of the informal housing sector. Our comparative indicators, in Figure 6, show that informal settlements remain a problem in some places, indicating that increasing housing demand is not met by formal supply. None of the countries in the region, except for Egypt, is above the trend line when compared to other developing countries. But the numbers still show that increasing demand is not translated into formal supply. Even if below trend, the numbers remain high and there are signals that informal housing stock increases in Morocco, Algeria and Iran. While more than the usual cautions apply to such cross country measures, because definitions are not constant across the various countries, this

measure of exclusion from formal housing services appears to be a concern in a number of countries as well as a growing concern in countries like Algeria, and Morocco.¹⁶

Figure 6. Informal housing in MENA countries and comparators



Source: Housing Indicators UN, WB (1993); Various Reports (1997, and 2002/03)

Here it is important to make a distinction between informal housing and slums¹⁷. For example, Tunisia has almost solved its slum problem through persistent upgrading programs over the last three decades, although informal housing stock comprises quite a significant ratio (at around 25%) of the urban housing stock. It should also be indicated that informal housing, in the MENA context, could represent a solution to housing demand by the lower income groups rather than being a problem, as long as access to social and infrastructure services is assured.

Box 2: Slum upgrading success in Tunisia

Tunisia recognized slums as an urban reality in the late 1970s, after previously following a policy of slum demolition and relocation of people to rural areas. After taking some foreign funded programs, the government created the Urban Upgrading and Renovation Agency in 1981, which provided a new impetus to slum upgrading. The Tunisian government has created an institutional framework to encourage partnerships between the urban upgrading agency, municipalities, service providers and private developers, allowing Tunisia to reduce dramatically the number of households living in slums. The success of the Tunisian government is reflected in the small size of the outstanding backlog of 24,000 units, which the government expects to completely remove by 2006.

Commitment to slum upgrading was constantly reaffirmed by the government in successive five year Economic and Social Development Plans. This national commitment has been matched by the Tunisian municipalities in their Municipal Investment Plans and reflected in their annual municipal budgets. Between 1984 and 1994, the housing stock increased by 500,000 units, accompanied by a noticeable improvement in housing conditions as well as an excellent connection rate to the basic infrastructure. These improvements have had a particularly beneficial impact on women and have facilitated their greater involvement and productivity.

Source: Cities Alliance, 2003 Annual Report.

¹⁶ A better measure of outcomes with respect to squatters and informality is time series data on a particular country rather than across country.

¹⁷ **Informal** (unauthorized) housing is defined as the housing stock which is not in compliance with current regulations. This includes illegally occupied land (squatters) as well as housing built outside the planned areas (even if land ownership is legal, and/or housing units constructed outside the construction regulations). **Slums** on the other hand refer to deteriorated living conditions in terms of both social and physical dimensions.

Section 5 Housing Market Performances

5.1 Supply factors

5.1.1 Land development regulations and ownership

The land development process is inherently risky, and rarely is the public sector well placed to deal with these risks. Extensive public control and ownership of land usually prevents the land supply from being demand responsive, creating land densities that are not consistent with its cost, and conveying non-transparent subsidies, often unintentionally, to middle- and upper-income households rather than the poor.

Table 3 indicates that public land ownership accounts for a significant share of urban land, more than 20 percent, in four of the countries in our sample: Iran, Algeria, Morocco and Egypt. The first three of these countries follow what we define as a “rigid regulatory environment” for land use.¹⁸ Not surprisingly, Figure 7 suggests that two of these countries, Egypt and Iran, have high land development costs. Unfortunately, we do not have comparable data for Algeria and Morocco, but recent analysis suggests that similar conclusions apply for these two countries, with higher land development costs for Algeria.

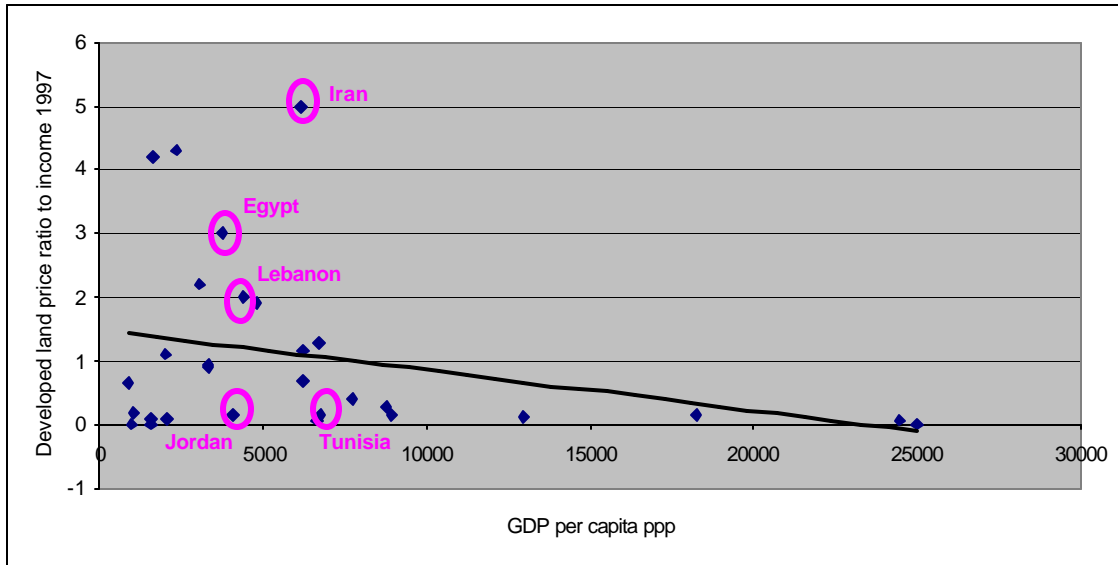
Table 3. Public ownership of land and regulatory controls

	Rigid	Being Relaxed	Flexible
High public ownership (more than 30%)	IRAN ALGERIA		
Significant public ownership (between 20-30%)	MOROCCO	EGYPT	
Low public ownership (up to 20%)		TUNISIA JORDAN	LEBANON

Source: Country Questionnaires (2002/03) and project reports

¹⁸ See Annex 2 for a definition.

Figure 7. Developed land price to income ratio¹⁹



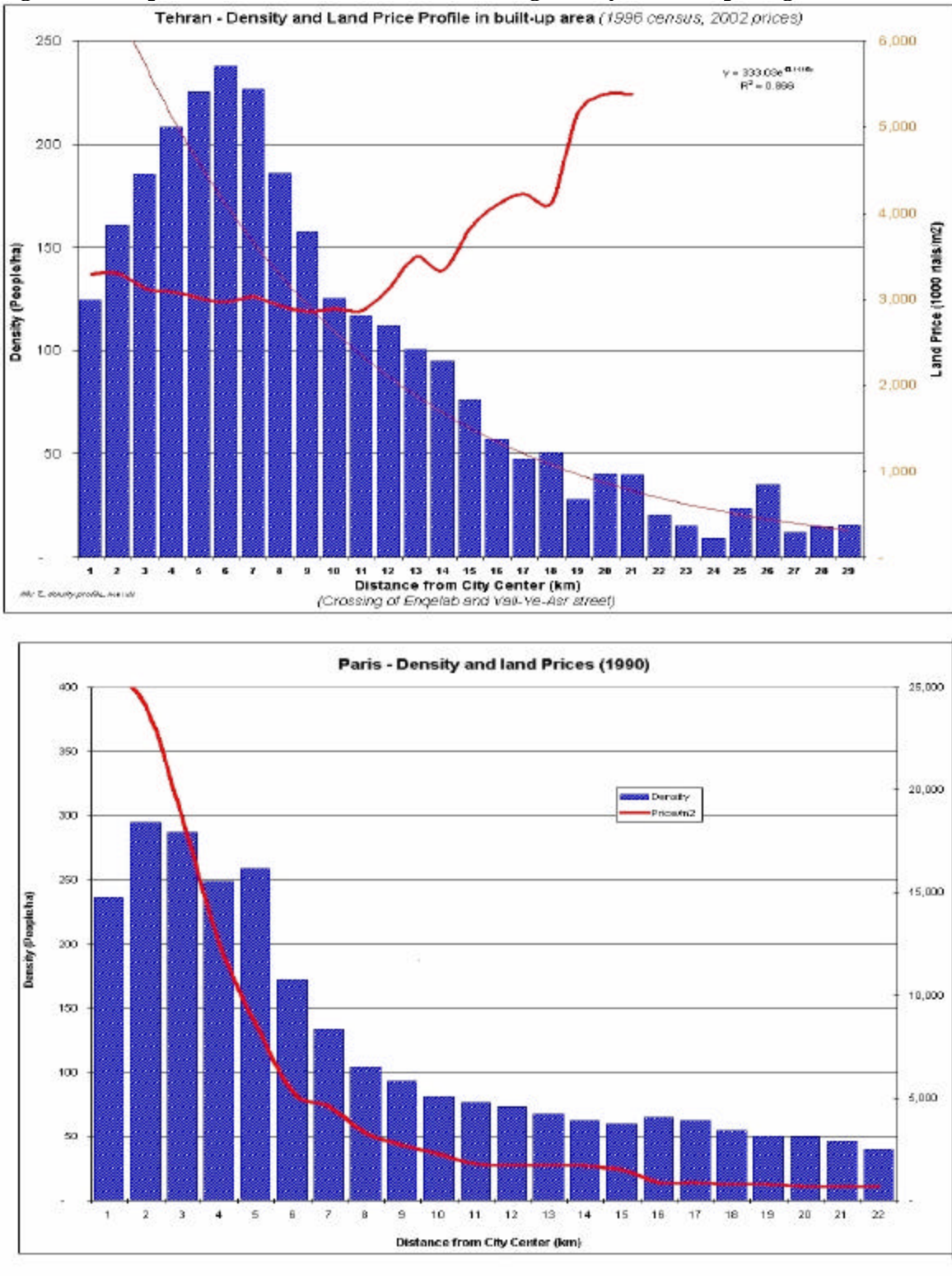
Source: Urban Indicators UN (1998); WDI (2002)

Besides affecting the cost of housing, land use regulations can also affect the spatial efficiency with which real estate is used. Figure 8, for example, shows that while the built up structure of Teheran follows that of most cities around the world—denser towards the city center and less dense as one moves away from the center—the price gradient does not. The land price gradient goes in exactly the opposite direction, i.e., land prices increase as one moves away from the city center. The price pattern in this city (unlike the one in Paris that is also in the figure)—or almost any other city—suggests an extremely distorted housing market, one that will lead to inefficient uses and spatial development of the entire fixed capital stock.

In conclusion, land management, including development regulations and land ownership, is one of the most important issues that the MENA countries need to address as a matter of policy urgency. However, it is most urgent in Algeria, Iran, and Egypt. In the former two, both rigid regulations and extensive ownership are the urgent matters to be solved. Though public ownership is a lesser problem in Morocco, development regulations need to be reviewed in view of the increasing demand and low affordability levels. In Egypt, on the other hand, although development regulations are less of a problem, the public sector should withdraw from ownership of urban land.

¹⁹ Price of developed land to income ratio is defined as the ratio between the median price of 1 square meter of developed land (i.e., with roads, water, sewerage and electricity connections) and median household income per month.

Figure 8. Comparison of Teheran and Paris building density and land price gradients



Source: Bertaud (2003)

5.1.2 Housing Production and Ownership

Besides public roles in land development, many countries in the developing world, and particularly those that relied upon the Soviet model also relied on the **public housing production**. This system of supply is even less effective than is the public land development process. At present it appears that only Algeria is following this approach directly. It should be noted that this approach has been abandoned throughout the Former Soviet Union and the reforming countries of Eastern Europe. On the contrary, in Tunisia, Jordan, Lebanon and Yemen, around 95 percent of housing construction is carried out by the private sector.

Similarly, outside of Egypt and Algeria, **public ownership** of the housing stock appears to be at relatively modest levels, lower, for instance, than the public ownership levels that characterize most European countries. However, there is an important distinction between such ownership structures in the countries in our sample and those in Europe. In the latter countries, housing allowances are generally provided to the poor residents of the public housing so that the rents can cover maintenance and utility costs. This form of assistance is not available anywhere in our MENA countries, with the result that public ownership is often synonymous with very low rents, and correspondingly, under-maintenance and more rapid depreciation. In sum, public house ownership in MENA countries is much more likely to result in housing that is run-down.

The rationale for public ownership of housing is often to provide affordable rental housing to poor segments of the population. The implicit idea is that rents in the private sector naturally tend to be too high for the poorest households, so that without such an option, they could not be housed decently. Another popular form of intervention in the rental market takes the form of rent control. While most countries have shifted out from the hardest versions of rent control (e.g. maintaining rents at a fixed nominal level for existing units), "Second-generation" rent control is still very popular. Under this system, rents are freely set at the beginning of the lease period, but cannot be increased more than an index (tenancy rent control), or before a certain amount of time has elapsed, or before the units has undergone significant maintenance/upgrading works. Rent controls of this kind can be found in 6 out of 8 countries in our sample (see Annex 2 for details).

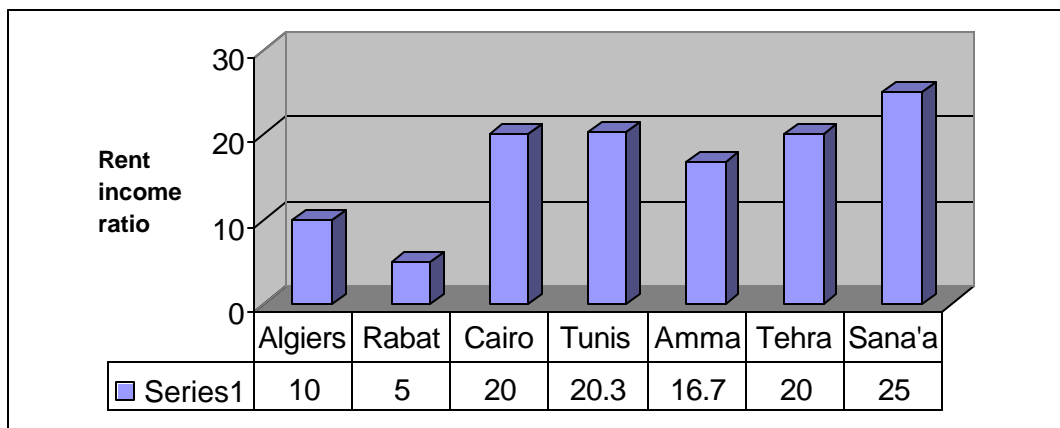
The international experience suggests that rent control, in conjunction with a legal framework too favorable to tenants against landlords, can result in the shrinking or near death of the private rental sector, resulting in the exclusion of (formal) rental as an option to the poorest parts of the population, instead of helping them to find decent housing. In fact, rent controls work like a double-edged knife: they lower costs for sitting tenants, but they also reduce the value of rental housing as an investment. As a result, investors turn to other products, causing the number of rental units to fall. Existing units suffer from a lack of maintenance, since landlords do not have any incentive to invest in their property. Lastly, due to difficulties in expelling bad tenants or getting their dwellings back, landlords end up keeping their units vacant rather than renting them.

Some countries in our sample suffer from these problems, at least to some extent. In Morocco, where rent control is in practice, the rent-to-income ratio is fairly low, e.g., 5 percent in Rabat. Institutional investors (e.g. insurance companies, pension funds) have totally disengaged from the rental market, the bulk of which (73%) is composed from self-constructed modern Moroccan houses of which the landlord leases a room or a floor, without a formal written contract. Other landlords are reluctant to rent their dwellings, which result in a high vacancy rate (according to the Housing Survey conducted in 2001, 500,000 urban units were vacant). In Egypt, rent control was recently cancelled for new leases, but is still relevant for the old stock. The rent-to-income ratio for Cairo was low by international standards at 6 percent in 1993, though it was estimated at 20 percent in 1999 when new leases are counted. According to 1996 estimates, around 1.8 million

housing units in Egypt are kept vacant, and 800,000 to 1 million units are in Cairo alone. Those units are either leased for some nominal fee, yet not physically occupied by the tenant, who keeps the premises for his/her children, or being held off the market by the owners who are fearful of the existing rent control, and units that cannot be sold because of high prices. The vacancy rate in Cairo is 14.5% (1993 indicators and Land and Housing Report 2003), very high by international standards. Currently, rent exemption law is applied in Lebanon to contracts signed prior to 1992.²⁰ It should also be noted that the vacancy rate at 17% is high by international standards.²¹

The rent-to-income profiles depicted in Figure 9 reflect this complexity of interventions in the rental market. The very low rents in Rabat are the reflect of the rent control in use in Morocco. It is worth noting that in countries where the majority of the housing stock is owned privately, such as Tunisia and Jordan, rent-to-income ratios are not terribly high by international standards.

Figure 9. Rent income ratios



Source: Urban Indicators 1993 and 1998 UN; Diamond and Jordan (2000); Iran Sector Work (2002)

5.1.3. Property rights and titling

In addition to setting adequate land development regulations, establishing clear property titling system and property rights is an integral part of land management systems. Cumbersome property titling systems and unclear property rights lead to dysfunctional land markets, and impede the involvement of the private sector into land development. Lack of a proper titling system is also a factor preventing development of housing finance systems. Most of the urban land in Yemen is not registered. It does seem to discourage large-scale development of housing tracts. By the same token, the land registry system is underdeveloped in Algeria and contributes to inefficiency and inadequacy of land development.

Insufficient property titling systems, and existence of informal agreements between the seller and the buyer are common characteristics in several MENA countries. In some countries like Jordan, the titling system is well-developed, but slow and complex procedures were indicated as a major

²⁰ See Annex 4: The exemption law would be relevant until June 2003, but its extension is under consideration.

²¹ It should be kept in mind that rent control is only one of the causes of high vacancy rates, along with vacant houses of expatriates, unsold units, and units that are unused due to war damages.

problem (PADCO 1999). It is also indicated that some people prefer not to register or update their land records to avoid taxes and long procedures (op. cit.). In Morocco, multiplicity of ownership claims (and statuses), freezes on land sales, registration hurdles, and different regulations for property titling and registry applied according to land status lead to underdeveloped property markets and speculation on those rare properties with clear property rights²².

Box 1 : Property rights in Egypt

The Hekr land rent is set out in the civil code. It allows the renting of land for a maximum of 60 years. Once the contract is registered the lease holder owns outright all improvements he/she introduced on the land (buildings, planting etc.). The ground rent, payable annually, should not be less than the rent of equivalent premises. Although it is rarely used in urban areas, such a system gives squatters considerable rights. In some urban settlements in Ismailia, Alexandria and Aswan, nominal *hekr* rents are used. It provides a paper basis for launching a land registry where no other proofs of occupation exist.

Hand claim with property taxes: In established squatter areas, the Ministry of Finance, through its revenue branches in local administrative units (*idarat el iradat*), identifies and records buildings and assesses the de facto owner with an annual property tax (*aawayid*) regardless of the status of claims on the land. The tax rate on residences is usually small and is calculated on the theoretic rental revenues such units should render. Every ten years the properties in a particular revenue district are assessed through property by property field surveys, from which are produced detailed descriptions of the property, which are then entered in the tax rolls. The existence of this description and payment of the associated taxes is a pre-requisite for applying for property rights and for obtaining metered electricity connections. This system not only helps urban management, but also endows squatters with considerable legitimacy. It also serves as a documentary base for property transfers, a feature on which the market puts a premium.

Source: Summarized from Sims (2002), in "Land Rights and Innovation"

5.2 Factors impacting demand

5.2.1 Housing Finance

In MENA countries, housing finance systems have recently been introduced. Jordan and Tunisia are the pioneers, where housing finance systems started to be formed in the early 1980s, followed by Morocco where long-term mortgage systems were introduced in the mid 1980s. In Algeria, Egypt and Iran, housing finance is currently taking off; in Yemen, it has not yet been developed. Figure 10 provides a perspective on the volume of housing finance. Table 4 provides a similar perspective through presenting an ordinal ranking of the countries based on housing finance sector development.

Given the long-term nature of housing investments, its purchase necessarily requires either finance, which is widely relied upon in OECD countries, or subsidies. In only one of the countries in the region, Jordan, has housing finance developed very extensively, beyond 10 percent of GDP. That is even low for an emerging economy.²³ In Tunisia, Jordan, Lebanon, and Morocco, housing finance systems have developed beyond the initial stage, but are still small. In all these countries, including

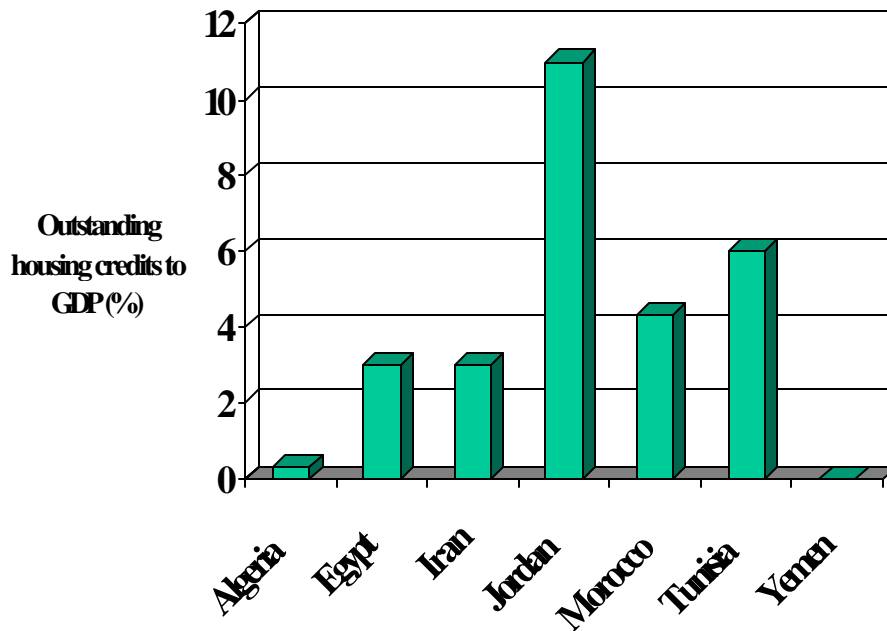
²² Source: Questionnaire sent by the Bank and responded by Moroccan authorities.

²³ In OECD countries, the stock of housing finance outstanding is generally equal to 50 percent or more of GDP, rising to more than 75 percent in the U.S., and more than 100 percent in the U.K. ²³ In Thailand and Malaysia, for example, the ratio is 16 and 22 respectively.

Jordan, housing finance systems are benefiting high and upper-middle income groups. Lower income groups usually do not have access to mortgage finance, due to weak participation in the formal finance system, informal nature or irregularity of income flows, and lack of guarantees.

Housing finance reforms have usually come along with broader reforms of the financial sector. It is thus natural to expect that reforms in this area will continue, as further changes are made to the capital markets or to the banking sector environment. However, it should be mentioned that to have a positive impact on the access of low-income households to housing, housing finance reforms have to be accompanied by fundamental reforms in the primary market, of the types mentioned above. Indeed, in housing markets with inelastic supply, a market-based housing finance system will tend to fuel the existing distortions by stimulating demand, which will result in higher housing prices. That is why in Yemen, which has much less developed financial markets and very high house prices, basic concerns relating to the functioning of the primary market should be given emphasis before housing finance is developed.

Figure 10. Volume of housing finance as a share of GDP



Sources: Li (2001); Erbas and Nothaft (2002).

Table 4. Housing finance status of MENA countries

	Undeveloped	Small and dominated by public sector	Small with potential	Relatively developed, but still public dominance
Algeria				
Morocco				
Tunisia				
Jordan				
Egypt				
Lebanon				
Iran				
Yemen				

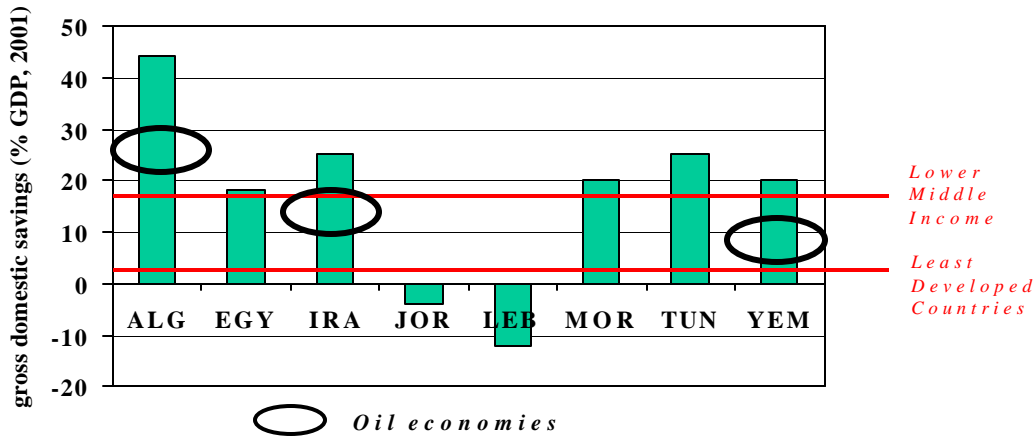
Source: consultant reports 2002/03, staff appraisal reports, implementation completion reports and aide memoires.

While caution should be exercised in phasing housing finance reforms into the overall reform agenda, it should also be realized that these reforms can also have beneficial effects that go well beyond housing markets. First, housing finance instruments such as contract savings for housing (CSH) can stimulate savings,²⁴ mainly by helping canalize informal savings into the formal system. Second, CSH can help bridge the gap between low-income / informal households and banks, by providing incentives to households to use formal financial services, and by providing the banks with an instrument of screening which they often lack outside the population of civil servants and formal private sector employees.

A look at Figure 11 suggests that, looking at cross-sectional data, the aggregate saving rates are higher in the countries in our sample in which the housing finance system is the less developed. However, in oil producing countries, other factors may play a role. For examples, although mortgage markets are not very developed in Iran and Algeria, aggregate savings are high.

²⁴ The theoretical effect of borrowing constraints on the overall level of savings is not theoretically clear and is an empirical matter. For example, Japelli and Pagano (1994) argue that tightening the borrowing constraints in the mortgage market promotes savings. Li (2001) argues that the combination of very high house prices and an underdeveloped supply of mortgage credit could discourage young households from saving to accumulate the down payment needed to purchase a house.

Figure 11. Savings in MENA countries and comparators



Source: WDI

5.2.2 Housing Subsidies

Finance and land subsidies seem to be the two most prevalent forms of subsidies encountered in MENA countries. As the information and data on tax exemptions and utility subsidies are limited, they were not included into the analysis here. However, available information suggests that at least in some countries of the region (Morocco, Algeria, Egypt), tax exemptions granted to real estate form an important part of the housing subsidy system²⁵

Finance subsidies. Interest rate subsidies are a principal feature of housing finance policies of all MENA countries.²⁶ Other subsidy means with regard to finance are tax benefits from deductible interest (e.g., in Morocco) and tax exemptions on savings for housing finance (e.g., in Tunisia). Although subsidies are a means of tapping private savings by lower-income groups in particular, the problem often encountered in practice is the difficulty of reaching the target groups. In many cases subsidies such as tax deduction from mortgage interest are found to be regressive, since they mostly benefit high-income groups, as is the case in Morocco and Algeria. International experience suggests that this kind of subsidy does not encourage savers, and generally results in less efficient financial intermediation as well as less provision of mortgage credit.

Land subsidies. Access by public developers to land at below market prices, and subsidies embedded in below market price of lots for households and cooperatives are common in Morocco, Iran and Algeria (where the states have large tracts of land), and to a lesser extent in Jordan, Tunisia and Yemen. Like interest rate subsidies, land subsidies are often nontransparent and even regressive. Furthermore, concessions (i.e., privileged access to public resources by public finance and land development organizations) also create unfair competition and prevent private sector players from getting into housing finance and housing production businesses.

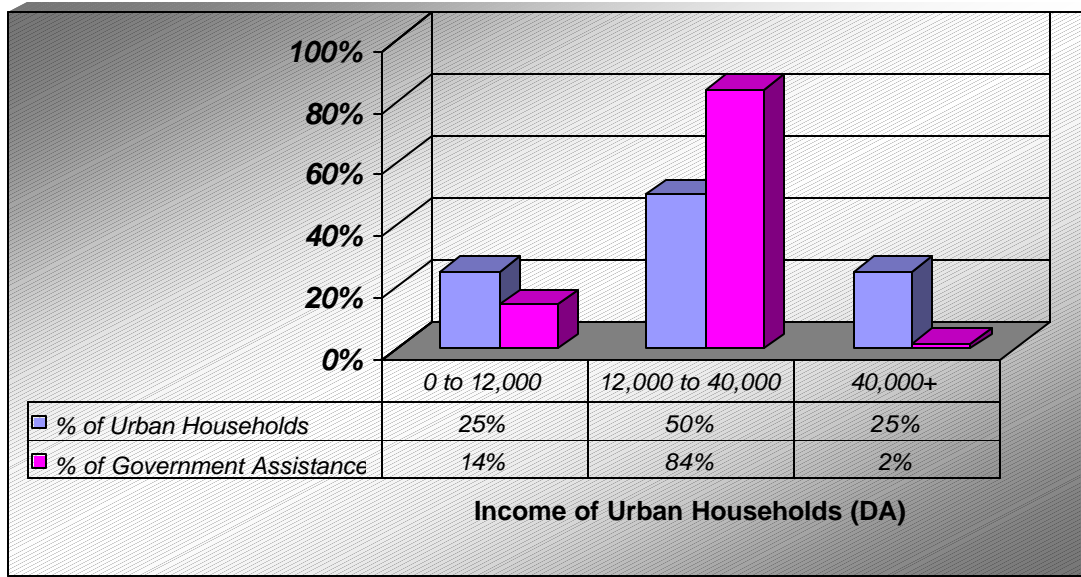
²⁵ In Morocco and Egypt, for example, tax exemptions on building materials are applied to support construction and decrease production costs, but we do not have quantitative data for any further discussions.

²⁶ The system of interest rates subsidies in Morocco was suppressed for new units in 2004 and will be phased out progressively as subsidized loans come to an end.

In Morocco, lots produced by public developers (which controlled 60 percent of formal land supply in the mid 1990s) are sold to households at different prices following the type of lot and income of the buyer, involving a cross-subsidization mechanism (World Bank 1995). In Algeria, the *Direction des Domaines* gives a rebate of 80% on government land sold for housing. This subsidy represents a loss of revenue for the Treasury, mainly to the advantage of high- and middle-income groups. In Iran, land subsidies include unbudgeted transfers, and according to a recent sector report, amount to more than \$2 billion (i.e., 3% of GDP). Furthermore, most of the land distributed to cooperatives and households remains undeveloped due to the lack of sufficient resources to provide basic services.

Available figures and reports confirm that subsidies comprise significant portions of national budgets. In Morocco, housing subsidies convened by all existing programs have been estimated to more than MDHs 7 billion (U.S. \$ 700 million) in 2002, about 5 % of GDP. Iran is another example of high-burden and often non-transparent subsidies. Interest rate subsidies paid out of the national budget via refinancing mechanisms amounted to \$19 billion in 2000/01 (World Bank 2002). The total amount of housing subsidies, including utility subsidies, land below market prices and tax exemptions for land and housing, was as high as 7.5% of GDP, by far exceeding the total annual housing investments (op cit). Nevertheless, subsidies that comprise significant burdens on government budgets are not largely available to the low income groups. In Algeria, an examination of government assistance (including all the housing subsidies passed through by different public programs) showed that only 14 percent of the housing assistance was going to the poorest quartile of urban households (Figure 12).

Figure 12: Who receives government assistance in Algeria?



Source: Algeria Low Income Housing Project Mid-term Review Mission Report, World Bank (2002)

Section 6

Key Policy Recommendations

Introduction

Many governments in the region are devoting significant effort and resources to make up for the housing shortfall. And, as we showed in figure 3, in most countries supply seems to be a lot lower than the desired level of housing flow. At the same time, our analyses strongly suggest that the provision of subsidized housing and/or subsidized financing, and production by the public sector, do not effectively address the sector's problems. Subsidizing expensive housing will result in fewer units as well as create additional pressure on housing costs. Rather, increased attention to making supply more responsive to demand, i.e., through adequate policy reforms, is necessary if the sector is to address the housing problems of the poor as well as the deleterious effects on the economy. The key policy instruments under government control are particularly land management, fiscal and financing policies. As we indicated above, it is important that policy reforms be pursued in the appropriate sequence. In this section, we first present some reforms that would be pursued under each of the above headings, and then we identify the priorities for reforms, and ways that the Bank could assist this process.

6.1. Policy Reforms for an Improved Housing Sector—Making Factor Markets More Responsive

6.1.1 Land and housing provision

Bank analyses of the housing sector as well as country studies and consultant reports on our sample countries are replete with analyses of the serious distortions in the supply of land and housing. It appears that current housing policies in most MENA countries have given the public sector a very large role in the development and allocation of land resources. While these policies were well intentioned, the experience is clear: the public sector is neither a good landowner nor an effective land developer. As the MENA countries are experiencing the higher urbanization rates that characterized the Latin American countries 20 years ago, one concrete lesson is that without a gradual disengagement and delimitation of the public role in land markets, the results will be more informality and slums, as well as higher house prices and inelastic housing supply. Hence, the following recommendations to develop a well-functioning housing market:

- **Build Public-Private Partnerships for land development and housing provision:** Public sector dominance in land development often results in a short supply of raw as well as serviced land, untargeted land subsidies, and consequent waste of public resources, and increases in land prices. In Algeria and Iran, and to a lesser extent in Morocco, for example, where public ownership of land is the cornerstone of housing policy, land supply is either far behind the need or inefficiently provided. Land management reforms focusing on land development and public private partnership, sales/auctioning of tracts to private developers, and provision of basic services to already allocated plots are the actions that should be considered.
- Reliance on public housing agencies to develop land and housing for lower income groups exposes governments to significant financial risks, allows inefficiencies to drain resources from the governments' overall development efforts, undermines the potential role of the private sector, and often causes over-dimensioned services being provided. Responsibilities and tasks of such

housing agencies need to be scaled back to concentrate on policy analyses and strategic planning. Land development and housing provision should be carried out by the private sector. International experience clearly shows that private sector construction companies and individuals, rather than public organization, should be the main actors of the construction industry. In Egypt, for example, “new communities projects” developed by government-owned companies have been gradually privatized, which resulted in increased production capacity. In Tunisia and Jordan, where housing sector performances are good, private sector actors, albeit on small scale, are the major actors of the housing construction industry.

- **Simplify land development regulations**: Inappropriate codes and standards for building construction and land use, often borrowed from more developed countries, prohibit the kinds of housing and infrastructure that the poor can afford. For example, minimum plot size in Jordan and Morocco is beyond the affordability of the majority of people. Specification of standards and codes for construction and planning need to be revised in view of local needs and prevalent practices. The aim should be to make housing sector development by the private sector affordable and flexible rather than to create uniformly high standard residential complexes that are neither replicable, sustainable, nor able to serve low-income groups. In Morocco, rigid urban development regulations are a prime impediment to land and housing supply.
- **Integrate informal settlements in the urban fabrics**. Regulations that are not relevant to the reality and affordability levels of the majority of populations lead to the formation of informal and squatter settlements. Anecdotal data strongly suggest that informal settlements in the MENA region are gradually and increasingly involving lower-middle and even middle income groups, as construction and land development regulations are not relevant to the needs and affordability level of the masses. Therefore, informal settlements should be seen as a part of the housing solution rather than a problem. Making them parts of the city by providing physical and social services, and technical advice and support to enhance physical structures, would be the most practical and cost effective solutions. However, ex-post action on existing slum settlements is comparable to trying to empty an endless well, if it is not accompanied by a prevention strategy. Slums and informal settlements are not the inevitable result of rapid urbanization, but the products of inappropriate regulations and dysfunctional land markets. Policy reforms bearing on the legal, regulatory and institutional framework of land management, land planning and housing production, by reducing the costs and of formality, are necessary ingredients to reduce the flows of informal construction.
- **Build capacity to enforce land regulation** is another important dimension. Slow and uncoordinated planning procedures create artificial scarcities of planned land since they cannot cope with increasing demand, and force people to settle outside the planning boundaries. Planning procedures need to be simplified as much as possible. Local governments need to be responsible for functional urban planning, and for delivery of serviced land provided with off-site infrastructure.
- **Simplify and modernize property rights regulations and titling systems**. Unclear property rights and inadequate titling and registry systems remain a serious problem in most of the MENA countries. Heavy tax burdens, long and cumbersome procedures may lead people to avoid registering their property and transactions, and prevent real estate markets from functioning efficiently. Registration procedures need to be simplified in nearly all MENA countries. In general, public authorities need to establish and publish guidelines for property registration and development. Systems need to be modernized, cost-effective and flexible. Regulatory and policy frameworks should be adjusted to incorporate different forms of tenure

rather than leaving them illegal. In particular, owners should be allowed to use their property as collateral even if not fully titled. In Jordan for example, most squatter areas had been subdivided, titled and registered by the Department of Land and Survey, and distributed to the owners. In Egypt²⁷ for instance, the *Hekr* system and hand claim with property taxes applied to desert land and informal settlements help improve the living conditions of the poor and increase registration of informal properties. Such examples can be useful for other countries in the region.

6.1.2 Subsidies need to be enshrined in broader sectoral reforms

Besides financial and land subsidies, rent controls are also a form of subsidy commonly used in the countries examined. Each of these subsidies typically entails lowering the price for a particular good so that its provision is less expensive than it would be if it were provided by a full market-based system, and there is a long literature on the general ineffectiveness of such ceilings as being efficient ways to convey subsidies to the poor. They are, for instance, difficult to target on the poor, and they often have adverse side effects as was discussed above, and is emphasized in Annex 3.

- **Reconsider financial subsidies.** Attention should be given to reducing and ultimately eliminating financial subsidies. Interest rate subsidies are a principal feature of housing finance policies of all the MENA countries. Other subsidy means with regard to finance are tax benefits from deductible interest (e.g., in Morocco) and tax exemptions on savings for housing finance (e.g., in Tunisia). Although such subsidies are frequently used around the world, the problem often encountered is the difficulty such financial subsidies have in reaching the target groups. In many cases subsidies are found to be regressive, since they benefit mostly high-income groups, as is the case in Morocco. Similarly, poor targeting characterizes the subsidies in Algeria and Iran.²⁸
- **Reform land subsidies.** Access by public developers to land at below market prices, and the subsidies embedded in below market price of lots for households and cooperatives, are common in Morocco, Iran and Algeria, and to a lesser extent in Jordan, Tunisia and Yemen. Like interest rate subsidies, land subsidies are often nontransparent and usually regressive. Furthermore, privileged access to public resources by public finance and land development organizations create unfair competition and crowd out the private sector from getting into housing finance and housing production businesses. Land management reforms should also focus on reducing land subsidies, and on making land allocations better targeted and transparent, besides reducing the public sector ownership of land.
- **Eliminate rent controls—an implicit form of housing subsidy.** Rent controls work like a double-edged knife: they lower costs for sitting tenants, but they also cause the rental housing stock to suffer from a lack of maintenance and eventually to decline, as investors shift towards other products. The international experience suggests that rent control, in conjunction with a legal framework too favorable to tenants against landlords, can result in the shrinking or near death of the private rental sector, resulting in the exclusion of (formal) rental as an option to the poorest parts of the population, instead of helping them to find decent housing. In an ideal world, rent controls and social rental housing programs should be replaced with explicit

²⁷ In Egypt there is an array of tenure types both on state and private land, including registered freehold tenure with preliminary title (aqt ibtida'i), final title (aqt niha'i); land rent systems; and various informal agreements between landlords and squatters (Sims 1997).

²⁸ Sources: Iran Housing Sector Strategy Study (2002); Algeria: Analysis of Housing Supply Bottlenecks (2002) *L'analyse des blocages de l'offre de logements en Algérie 2002*

upfront subsidies such as housing allowances. Of course, there are significant administrative issues in whether or not many countries have the administrative ability to deal with such demand oriented vouchers. In the event that they do not, tending towards less binding rent controls and scaling back public housing stock are trends that warrant encouragement.

6.1.3. Housing Finance

Expand access to housing finance to all segments of the population. One of the most evident impacts of public dominance in housing finance is the limited accessibility of mortgage loans relative to the amounts supplied in countries that provide less public support for housing finance, such as OECD countries, but also other developing countries, e.g. Malaysia and Thailand. Even Jordan, which is the most advanced country in this regard, is still lagging behind many other middle-income countries. In many respects, the small size of the housing finance systems in many of the MENA countries is not surprising. Since it is largely based on interest rate ceilings and privileged access to public funds by public sector institutions, such an environment crowds out private sector players and thus leaves the mortgage markets emaciated.

Clearly, the countries in the region have much to gain from better housing finance. Given that several countries have low saving rates, there is evidence to suggest that savings could be raised through the development of mortgage markets. However, housing finance policy cannot be viewed in isolation, and the sequencing of other reforms is also of crucial importance. Indeed, for housing finance reforms to fully contribute to the development of housing sector, they must be undertaken within a broader policy reform agenda that is linked with real estate sector policies—and particularly land market policies— and broader financial sector reforms.

6.2. Scope for further cooperation with the Bank in the housing sector

The Bank has a long and largely strong relationship with many of the countries in the region with respect to housing, housing finance, and slum upgrading. Over the past decade, the Bank has been involved in 10 completed housing projects in the region, 90 percent of which had a satisfactory outcome. Lending in housing amounts to about one third of the Bank's urban lending in the MENA countries that also performed strongly, with 90 percent of these loans having satisfactory outcomes. This figure compares with the 69 percent satisfactory outcomes for all (228) projects completed in the sample countries during the same time period. Thus, while not a very intensive part of the Bank's dialogue with the countries in the region, housing has clearly been a successful aspect of Bank assistance.

One way to assess the scope for further cooperation is to consider the various topics examined in the present study, and then to suggest whether a particular type of intervention appears to be appropriate for a specific country, based on analysis of the housing sector performance. This analysis is presented in table 5 and summarized as follows.

Further sector analysis is of the highest priority in Lebanon (in view of the lingering effects of war), Jordan and Yemen. However, sector work has effectively already been done in Iran, Tunisia and Morocco. The Iranian situation appears to be unique, as an Adjustable Lending Program has just been approved, following sector work that identified a range of policies which adversely affect both the sector and the economy. In Morocco, an extensive reform program for the sector is already underway. It includes new housing finance instruments, changes in the subsidy system,

reform of land development regulations, as well as an ambitious nationwide program of slum upgrading. The Bank has provided technical assistance in the past and is currently preparing a sector adjustment loan to support the government in the implementation of the reform program.

If a similar shared view could be developed with Algeria and Yemen, there would be substantial gains from developing a housing reform agenda. Although there is a strong demand for housing in Yemen, mostly due to demographic pressure and high inflation, supply side policies and institutional framework have not been developed beyond the elementary levels. Finally, one could argue that Algeria has also been extensively analyzed. However, there has never been a comprehensive sector review in support of a coherent overall reform agenda shared by the authorities and the Bank. The result has been a series of episodic interventions rather than the development of a long-term strategy of cooperation.

Table 5 : Priorities in Housing Sector Interventions as Suggested by this Study

	Algeria	Iran	Egypt	Lebanon	Morocco	Tunisia	Jordan	Yemen
Slum Upgrading	3	2	1	2	2	4	4	2
Housing Finance	IP	3	2	2	3	2	2	4
Land Development	1	2	2	2	1	4	-	2
Reform of Housing Subsidies	1	1	1	3	2	2	2	4

Need for further Sector Work

	Algeria	Iran	Egypt	Lebanon	Morocco	Tunisia	Jordan	Yemen
	3	D	2	1	D (*)	3	1	1

Legend: IP stands for "In Progress", denoting ongoing projects in the country ; D is "done"; and the scale 1 to 4 is where 1 is the highest and 4 is the lowest priority, and 0 suggests that the instrument is inappropriate.

(*) Still needed: technical assistance to the Moroccan authorities to implement policy reforms already retained by them.

Housing finance interventions would appear to be of high value in Egypt, Lebanon, Tunisia, Morocco and Jordan where the Bank can help to build upon more effective housing market policies, stable macro environments, and successful past interventions. In Tunisia the housing finance components of the Tunisia Urban III and V projects, and in Jordan the Housing and Urban Development project which was completed recently are the examples of successful projects that the Bank supported. In Egypt also the stable macro-economic environment, and in Lebanon the regulatory environment for private sector operations, are definitely advantages for housing finance efforts. In Algeria, the Bank is currently supporting housing finance reforms aiming at developing the mortgage system. Housing finance programs would be premature in Yemen, where more basic sectoral concerns apply.

Land management to ensure responsive land supply is a highest priority for Algeria and Iran. Land management appears to be a priority for Morocco to ensure more responsive land supply. This area will be included in the package of reforms which is currently being implemented in the country. In Egypt and Yemen land management also appears to be a priority.

Subsidy reforms: Subsidy reforms to ensure targeted subsidies appear to be first priorities for Algeria, Egypt and Iran, where they should be carried out in coordination with land management reforms. They are also recommended for Tunisia and Jordan, but as secondary priorities. In the case of Yemen, it is not indicated as a priority, since sector work is required to better understand the bottlenecks, before getting involved in subsidy reforms.

Slum upgrading: Slum upgrading policies and programs to improve the living conditions of existing poor neighborhoods, appear to be a major priority in all the countries of the region, but especially in Iran, Yemen, Morocco, and Egypt. Experiences of Jordan and Tunisia in slum upgrading would be useful for the other countries in the region. Tunisia and Jordan have implemented successful long-term policies for slum upgrading and these countries seem to be now on the right track to solving their slum problems, without further Bank assistance.

Conclusion

Bank research indicates that throughout the world, housing demand follows highly regular patterns. In many of the countries of the region these demand factors—particularly demographic trends—indicate that housing demand will play an important role in these economies for the foreseeable future. In addition, if housing demand patterns across countries are very similar but outcomes are quite variable—as they are in our sample—the obvious culprit is the supply policies used. When the housing market indicators of these countries are reviewed against the background of country circumstances and World Bank experience in the sector and in the region, it is clear that these policies matter.

In Annex 3, we examine a number of ways that housing market functioning could affect the broader economy. In other words, in that annex we undertake a number of “thought experiments” about the effects that a more responsive housing sector could produce when confronted with intense demographic demands. For example, in Annex 3 we estimate that the deadweight efficiency losses of regulatory/land policies in Morocco may cost as much as 3 percent of GDP. We also provide illustrative estimates of the effects that current policies have on unemployment, savings, factor productivity, and overall growth. While each of these different measures must be qualified in different ways, cumulatively they are suggestive of the distortions in sectoral policy having significant adverse effects on the functioning of the economy. In effect, what these results point to is a situation where distortions in the housing market have adverse effects on the macro-economy which, in turn, have additional adverse effects on the housing sector. Cumulatively, this vicious circle can have quite significant effects on welfare and growth.

At first glance, it may seem rather extreme to posit such a strong relationship between housing affordability and poverty reduction. We must recognize that the lack of data, and the contested reliability of some data used in this paper, make our story more illustrative than definitive.²⁹

On the other hand, there is empirical evidence that in other countries housing policies have had significant effects on housing supply elasticities of the magnitude we find here, see Malpezzi and Mayo (2000). Second, as we describe further in Annex 2, our composite measure of the effectiveness of policy appears to be a good predictor of house price-to-income ratios. Third, we know that even though house prices have reached such high levels in a number of our countries, that real construction wages have continued to fall and production levels have remained much lower than estimated demand. In other words, “something” is constraining production in a highly labor-intensive sector in countries which already have high unemployment rates and rapidly growing labor forces. Something is also causing house prices in these countries to reach very high levels.

Finally, as we argue in Annex 3, if housing policy is indeed the culprit in creating the region’s housing affordability problem, as we believe it is, then the spill-over effects of housing policies affect not only the housing sector but factor productivity, economic efficiency, and savings. In which case, one of the most effective ways to contribute to a pro-poor, more equitable growth trajectory is to address the incentives and policy distortions that create these housing affordability

²⁹ We do not, for instance, have estimates of either the elasticity of supply of housing in these countries or the effects that housing policy can have on that elasticity. Our measures of affordability are “expert opinions,” not empirical observations. Finally, while we have direct estimates of the poverty elasticity of growth for some countries, we had to infer estimates for some of the other countries.

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problems. Indeed, while effective slum upgrading programs can certainly be mounted in countries with severe affordability problems it will be impossible to scale up attempts to address housing poverty without first addressing these broader issues. It is thus clear that housing sector reforms can play a significant beneficial role in these countries, and that when a shared longer-term perspective on the sector is developed, the World Bank can contribute to realizing these gains.

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Annex 1

Housing Demand Factors in MENA

Housing Demand

The demand for housing is driven by:

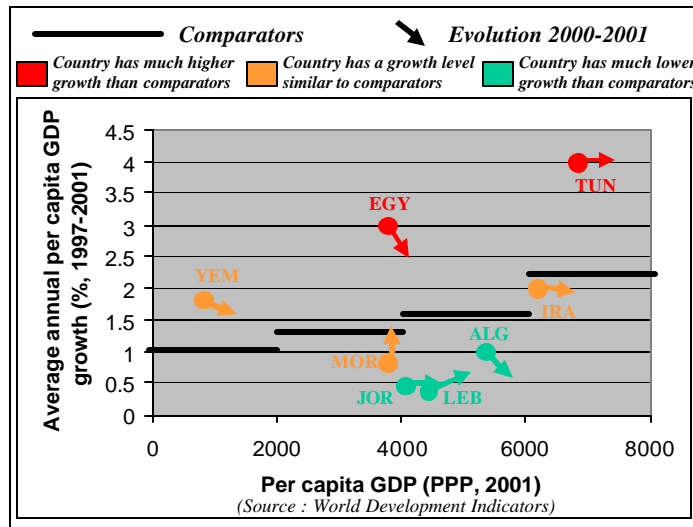
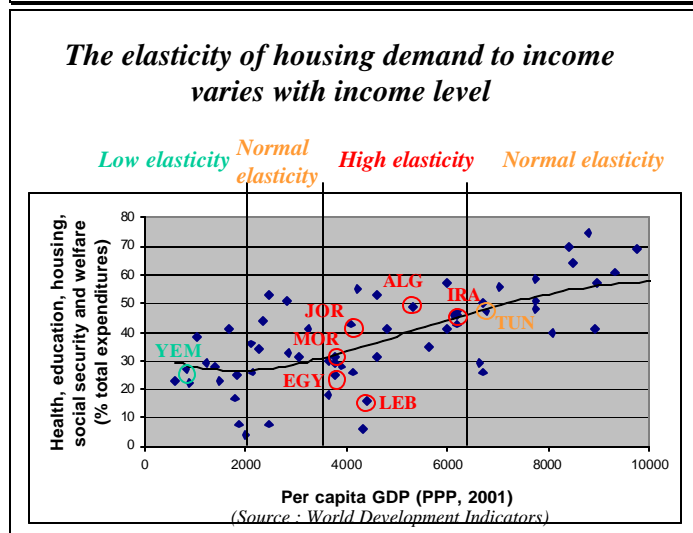
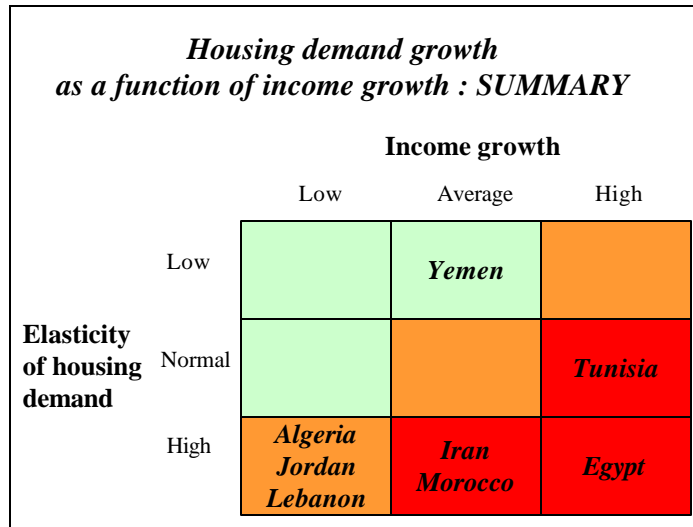
- 1. Income level and growth;*
- 2. Demographics;*
- 3. Urbanization; and*
- 4. housing's value as a social and economic asset*

Comparators

Countries	Per capita GDP (PPP, 2001)	Comparators
Yemen	812 USD	40 countries (GDP < 2000 USD)
Egypt	3750 USD	27 countries (2000 USD < GDP < 4000 USD)
Morocco	3787 USD	
Jordan	4080 USD	23 countries (4000 USD < GDP < 6000 USD)
Lebanon	4391 USD	
Algeria	5319 USD	
Iran	6128 USD	15 countries (6000 USD < GDP < 8000 USD)
Tunisia	6769 USD	

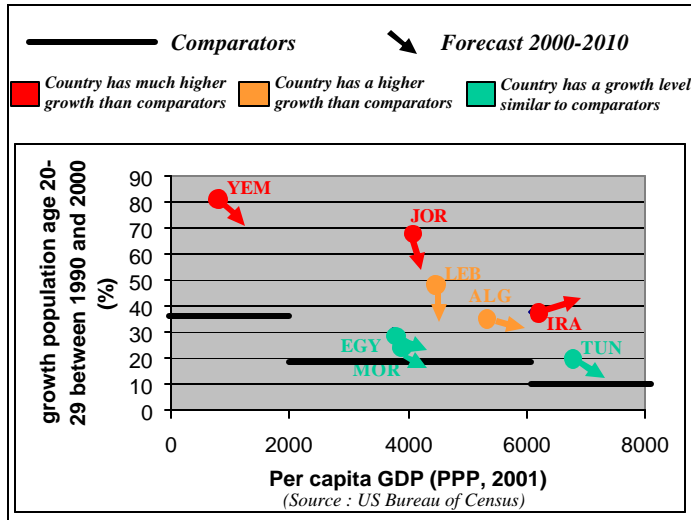
1. Level and growth of income

- one country is **low income** (*Yemen*); the other are **middle-income countries**, most of them (except *Tunisia* and *Iran*) being in the **lower range** of that category;
- most countries experience an **average** (*Iran, Morocco, Yemen*) or **low** (*Algeria, Jordan, Lebanon*) **per capita economic growth**; only *Tunisia* and, to a certain extent, *Egypt*, have sustained a growth rate significantly **higher** than comparator countries;
- housing investment being a quadratic function of income (*Burns and Grebler, Renaud, Buckley and Mayo*), most countries are likely to experience a **high elasticity of housing demand to income**, except for *Tunisia* (**lower elasticity**) and *Yemen* (**even lower**).

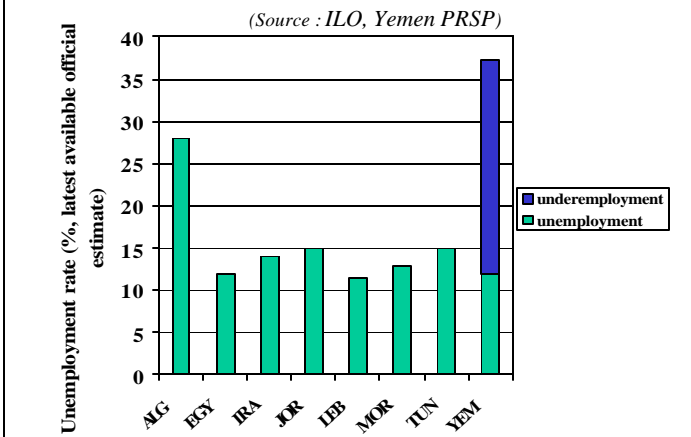


2. Population

- for the past decades, the population of the MNA region has been growing **faster than all regions of the world except Sub-Saharan Africa**; for some countries (*Jordan, Lebanon*) the demographics are also fed by **migrations**;
- this demographic pressure is **particularly high** in *Yemen, Jordan and Iran*, also **high** in *Algeria and Lebanon*, and **lower though still high** in *Morocco, Egypt and Tunisia*;
- The demographics in the MNA region represent both -
 - (1) a **challenge** to provide jobs, incomes and housing for the growing population; but also
 - (2) an **opportunity** to increase economic growth from the expanding labor force. The **housing sector can play a critical role to generate low-skill employment** (*Dhonte, Bhattacharya and Yousef, 2000*).



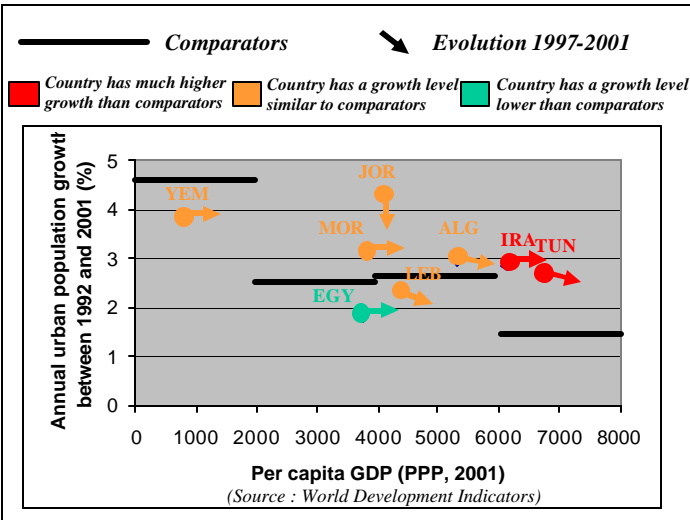
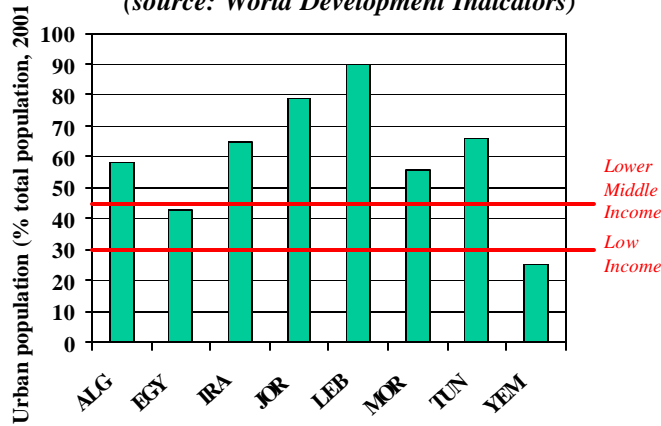
The demographic pressure in the MNA region is reflected in the high unemployment rates



3. Urbanization

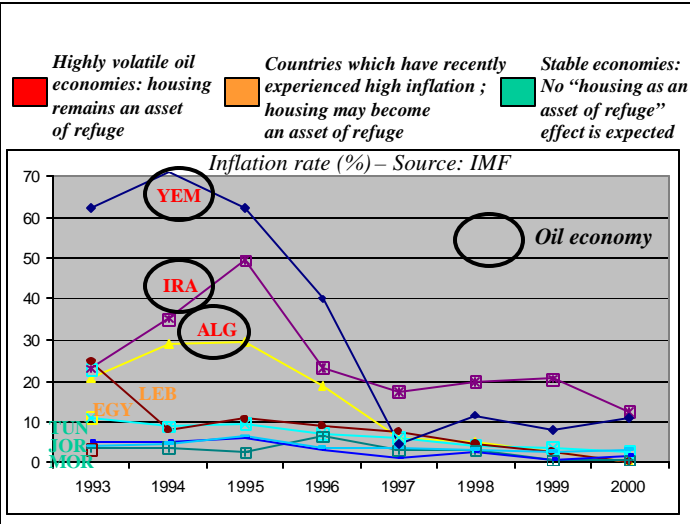
- the MENA region has some of the most rapidly urbanizing cities in the World, particularly secondary cities.
- the urbanization rate is high in all countries, particularly in Algeria, Lebanon, Egypt, Iran, Jordan, Tunisia,
- Throughout the world, the driving force for urbanization is the higher economic opportunities existing in urban areas;
- A different imperative also exists in MENA countries, such as Algeria, where urbanization is also fed by people leaving rural areas for the more secure cities, or Jordan and Yemen where remittances are high.

MENA is a highly urbanized region
 (source: World Development Indicators)



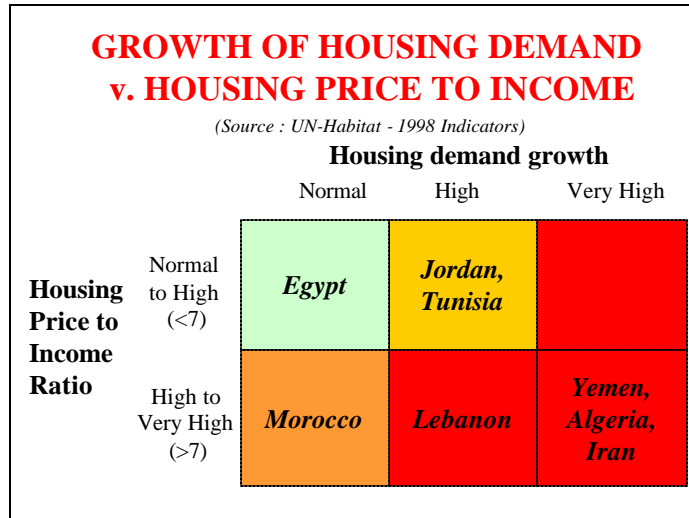
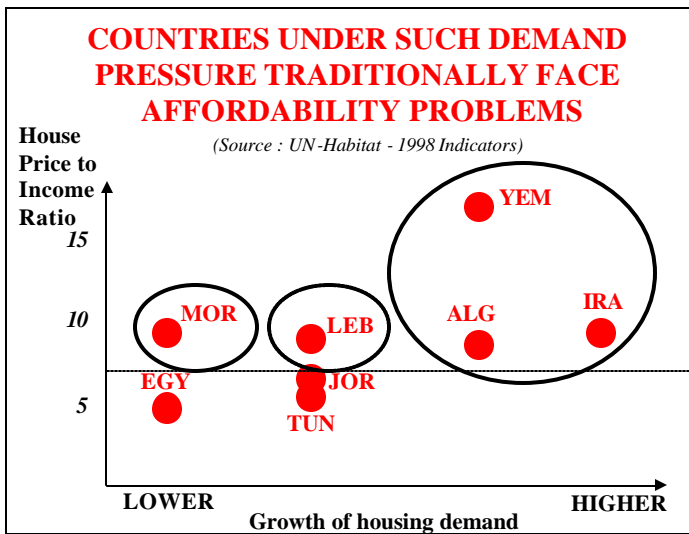
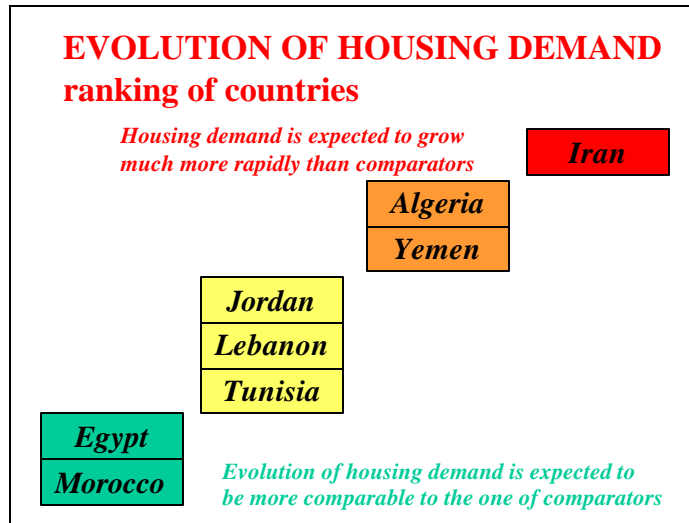
4. Housing as an asset of refuge Due to inflation

- the three “oil economies” (*Algeria, Iran, Yemen*) have volatile economies; although the situation has improved recently, they experienced **very high rates of inflation** at the beginning of the last decade. Should inflation rise again, the housing demand could be significantly impacted, housing becoming an “**asset of refuge**”.
- two other countries (*Egypt and Lebanon*) have also, in the recent past, experienced **high rates of inflation** and could see their housing demand affected.
- the three last countries (*Jordan, Morocco, Tunisia*) have had a **low and stable inflation rate** over the past ten years. Inflation is very unlikely to become a factor for housing as an “asset of refuge”.



SUMMARY: EVOLUTION OF DEMAND : impact of factors

	income	population	urbanization	housing as asset
<i>Algeria</i>				
<i>Egypt</i>				
<i>Iran</i>				
<i>Jordan</i>				
<i>Lebanon</i>				
<i>Morocco</i>				
<i>Tunisia</i>				
<i>Yemen</i>				



Annex 2

Housing Supply Factors in MENA

Housing Supply

The supply of housing is determined by:

- 1. The quantity and quality of the existing stock.*
- 2. The location and inclusiveness of the stock.*
- 3. The flexibility with which the existing stock can be used, and*
- 4. The responsiveness of factor input markets*

Housing Supply

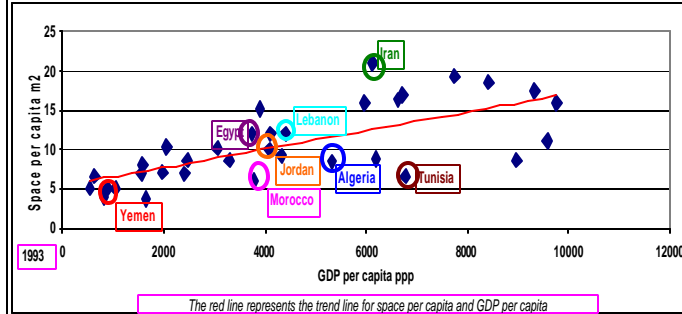
Housing Supply is discussed in two sections:

- 1. HOUSING OUTCOME**
- 2. HOUSING SUPPLY POLICIES**

1. Housing Outcome

- **The Quantity and Quality of Housing Stock**
 - *Space per capita*
 - *Service availability*
 - *A composite index of quality and quantity*
- **Informal housing and Slums**
- **Urbanization pattern: housing Stock's Location**
- **Housing price to income ratios**
- **A Composite Measure of the Supply of Housing**

House space per capita in MENA countries and comparators

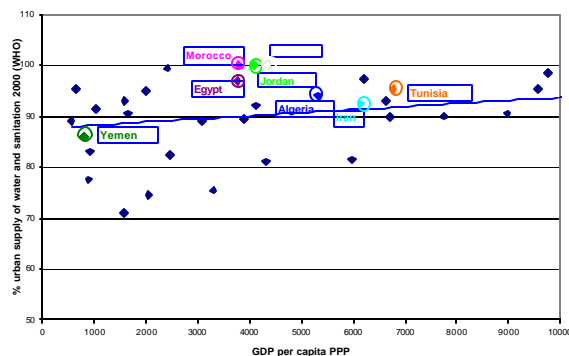


Source: Housing Indicators UN and WB; and WDI

House space per capita

- One country, **Iran**, has more space than would be expected for its income level;
- A number of countries, **Algeria**, **Morocco**, and particularly **Tunisia** have less space than comparator countries;
- **Jordan**, **Lebanon** and **Egypt** have housing space per capita that would be expected at their level of income.

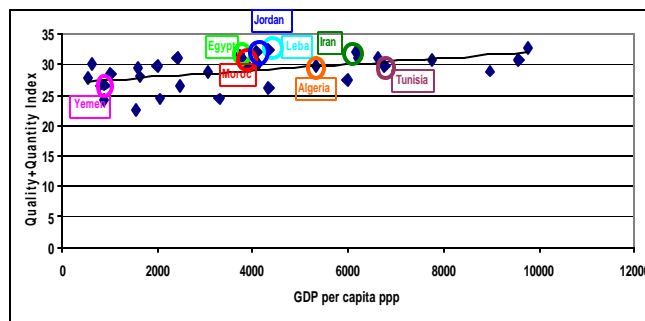
Service availability in MENA countries and comparators



Quality of Existing Stock

- Many countries have high service availability
- Further analysis is needed to determine the effectiveness and reliability of services in this water shortage region
- Composite index : amount of floor space per capita available multiplied by the percentage of that space which has both water and sanitation.
- Housing stock in the region is relatively strong. The composite indicator suggests that the region's stock is similar to or better than what would be expected for countries at their respective development levels.

Composite Index of Quality & Quantity in MENA and Comparators

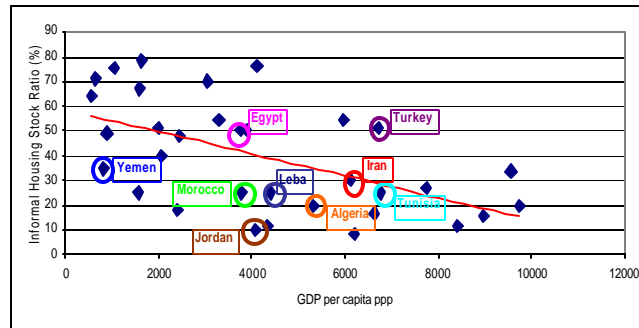


Source: Housing Indicators UN, WB 1993; WHO 2000; and WDI 2002

Informal Housing & Slums

- **Definitions:**
 - **Informal (unauthorized) housing:** defined as the housing stock which is not in compliance with current regulations
 - **Slums:** refer to deteriorated living conditions and low levels of access to basic services
- **A methodological constraint:** cross country comparisons of this sort are subject to limitations!

Informal Housing in MENA and Comparators



Source: Housing indicators WB UN (1993); survey reports (2002/03); and WDI (2002)

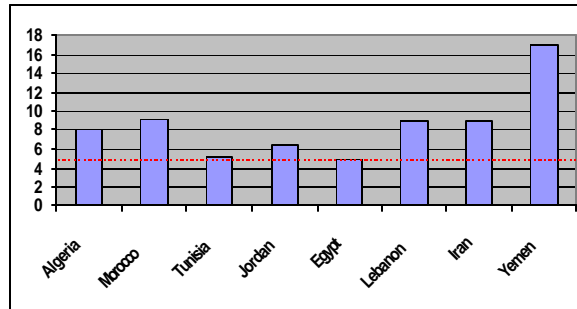
Informal Housing

- None of the countries in the region except for **Egypt** is above the trend line when compared to other developing countries.
- But, numbers show clearly that demand is not translated into formal supply.
- There are also signals that informal housing stocks increase, primarily in **Morocco, Algeria, Jordan and Iran.**

Slums

- **Tunisia** is the champion of reducing slums. The ratio reduced from 44% in 1966 to 1% in 2002
- **Morocco** is giving alarming signals: 210,000 households live in slums. The King has made housing and slum eradication top priority
- **Algeria** is another country where slum is an issue.

House Price to Income Ratio

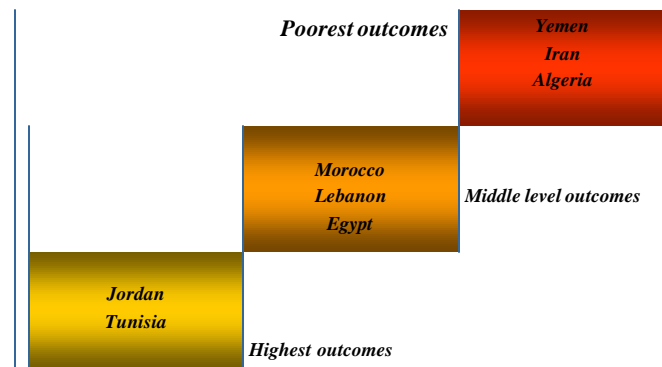


Source: Urban indicators 1998; Iran Sector work 2002

Composite Measure of Housing Sector Conditions

	Space (per capita m ²)	House price to income ratio	Informal housing & slums	Location	Overall score
<i>Algeria</i>	2	2	2.5	1	1.9
<i>Morocco</i>	2	2	2.5	4	2.6
<i>Tunisia</i>	1	3	3	4	2.8
<i>Jordan</i>	3	3	3	3	3
<i>Egypt</i>	3	3	1	2	2.3
<i>Lebanon</i>		2	2.5	3	2.5
<i>Iran</i>	1	2	2	2.5	1.9
<i>Yemen</i>	1	1	2.5	2.5	1.7

Categorization of Housing Sector Conditions



2. Housing Supply Policies

- Flexibility of Stock
- Responsiveness of the Factor Inputs
- Subsidies
- Composite Policy Index

Flexibility: Rent Controls & Public Rental Stock

Source: country surveys & reports 2002/03

Public rental stock ownership	Applied rent control	Relaxed controls	Not applied in practice	No rent controls
High: 20 -40%	Egypt (existing stock prior 1992)	Algeria		
Between 10-20%				Iran
Low: Less than 10%	Morocco Jordan (New rentals ; law issued recently)	Lebanon (applied to stock prior 92)	Tunisia (stock built before 1972)	Yemen

Public stock ownership and rent controls

- Apart from **Egypt** and **Algeria**, public stock ownership appears to be at relatively modest level;
- Lower than for instance OECD countries, but in our countries public ownership is often synonymous with low rents and thus under-maintenance;
- Rent controls decrease the flexibility of use of existing stock, particularly in **Egypt** and **Lebanon**.

Responsiveness of Factor Input Markets

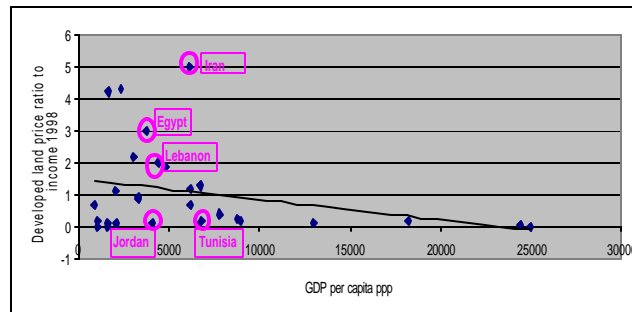
- Land
- Finance
- Production

Public land ownership & land development regulations

Source: country surveys
 2002/03, project reports

	Rigid	Being relaxed	Flexible
High public ownership More than 30%	IRAN ALGERIA		
Significant Between 20-30%	MOROCCO EGYPT		
Low public ownership Up to 20%		TUNISIA JORDAN	LEBANON

Price of developed land income ratio

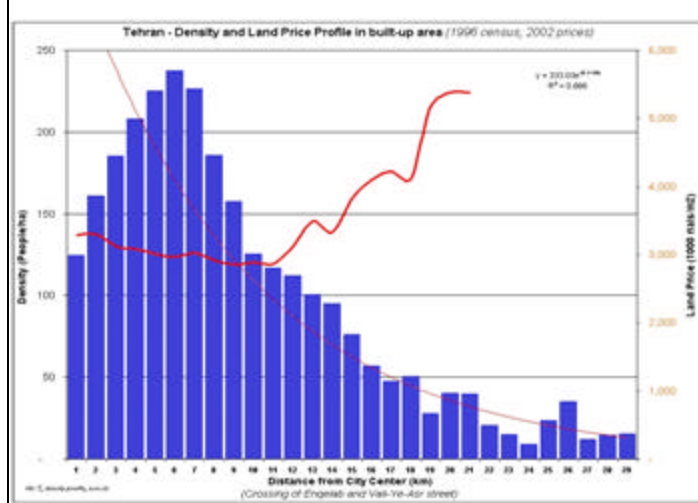


Source: UN Urban Indicators; Iran Sector Report; and WDI 2002

Price of developed land income ratio (definition)

Price of developed land to income ratio: this is a major indicator of land availability. The ratio of developed land to household indicates if affordable land is available to cater needs.

It is the ratio between the median price of 1 sqm of developed land and median household income per month



Land

- Public ownership accounts for a significant share in three of our countries: **Iran, Algeria** and to a lesser extent **Morocco**;
- **Iran, Algeria, Egypt** and **Morocco** have rigid regulatory environment for land use;
- Not surprisingly two of those countries **Egypt** and **Iran** have high land development costs. We do not have data for Morocco and Algeria;
- Land price gradient for **Iran** for example, suggests an extremely distorted housing market. This leads to inefficient spatial use and development.

Source: country surveys 2002/03, project reports

Finance

	Undeveloped	Small & dominated by the public sector	Small with potential	Relatively developed but important role of public sector
Algeria				
Tunisia				
Morocco				
Egypt				
Lebanon				
Jordan				
Iran				
Yemen				

Finance

- In one of the countries in the region, **Jordan**, housing finance developed (beyond 10% of GDP);
- But that is even low by international standards for an emerging economy, e.g. the ratio is 16% in Thailand and 22% in Malaysia;
- In **Tunisia, Morocco** and **Lebanon** it has developed to some extent, but the public sector still plays a major role.

Country surveys 200/03 and project reports

Housing Production

	Public sector dominance	Private sector has important role (but public sector enjoys privileges)	Private sector dominance
<i>Algeria</i>			
<i>Morocco</i>			
<i>Tunisia</i>			
<i>Egypt</i>			
<i>Jordan</i>			
<i>Lebanon</i>			
<i>Iran</i>			
<i>Yemen</i>			

Subsidies

Housing subsidies are extensively used in the region except for Lebanon.

- Land subsidies are common in **Iran, Algeria and Morocco**, where the public sector owns significant portions of urban land.
- Finance subsidies are common in **Tunisia, Yemen, Egypt, Morocco and Iran.**

They comprise significant burdens.

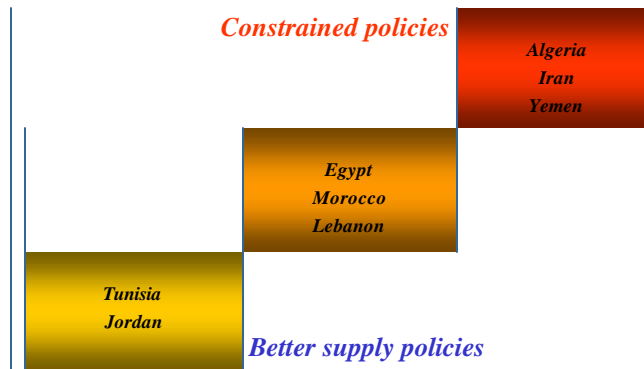
- In **Iran** housing subsidies, including utility subsidies and unbudgeted transfers are about 6% of GDP
- In **Morocco** only, total subsidies (tax deductions & exemptions + finance + land subsidies amount \$700 million (2002 estimates).

But regressive: in Algeria only 14% of housing subsidies benefit the lowest 25% in the income distribution

Composite Policy Index

	Land	Finance	Production	Flexibility of stock	Overall score
<i>Algeria</i>	1	1.5	1	1.5	1.2
<i>Morocco</i>	2	2.5	2	3.5	2.5
<i>Tunisia</i>	3	2.5	3	4	3.1
<i>Jordan</i>	3.5	3	3	3	3.1
<i>Egypt</i>	2.5	2	3	1.5	2.2
<i>Lebanon</i>	3	2.5	3	2	2.6
<i>Iran</i>	1	1.5	2	4	2.1
<i>Yemen</i>	2	1	2	3	2

Categorization of Supply Policies



House Price Income Ratio as a Function of Supply Policies

		Price income ratio		
		Normal	High	Very High
Supply policies	Better policies	<i>Tunisia</i> <i>Jordan</i>		
	Constrained	<i>Egypt</i>	<i>Morocco</i> <i>Lebanon</i>	
	Highly Constrained		<i>Iran</i> <i>Algeria</i>	<i>Yemen</i>

Policy and Housing Sector Outcome

Policy matters!

- In two of our countries, **Tunisia** and **Jordan** with better supply policies, house price to income ratios are normal;
- **Morocco**, **Iran**, **Algeria** and **Yemen** with constrained policies, present high price to income ratios.

Policy and Housing Outcome:

Overall availability of housing stock is not a severe problem, except for a few countries, e.g. Algeria.

But, supply is distorted by policies: *Who does produce? For whom is it produced?* and *how is it provided?* are significant matters that need to be addressed.

Bottlenecks:

- Public sector dominance in land development, and constrained supply for the low income groups.
- Extensive and regressive subsidies.
- Limited housing finance.
- Excessive production for higher income groups for example in Egypt and Lebanon, and limited production for low income groups.

Annex 3

**Economic and Development Dimensions
of Housing Policies in MENA**

**The broader consequences of distortive housing policies for MNA countries:
 Some thought experiments**

1. *The costs of low housing affordability: comparing Tunisia and Morocco*
2. *Housing finance and savings behavior: encouraging or discouraging savings?*
3. *Employment opportunities and factor productivity: comparing Algeria and Egypt*
4. *Housing and poverty reduction: tracing the links and simulating the poverty effects*

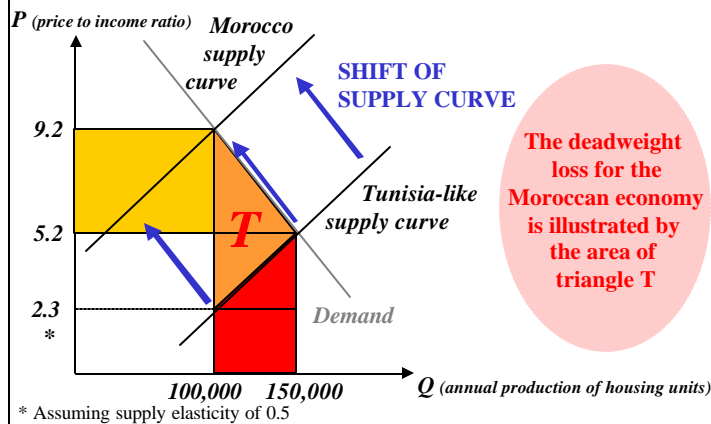
1. Economic efficiency: what do high housing costs imply for the Moroccan economy?

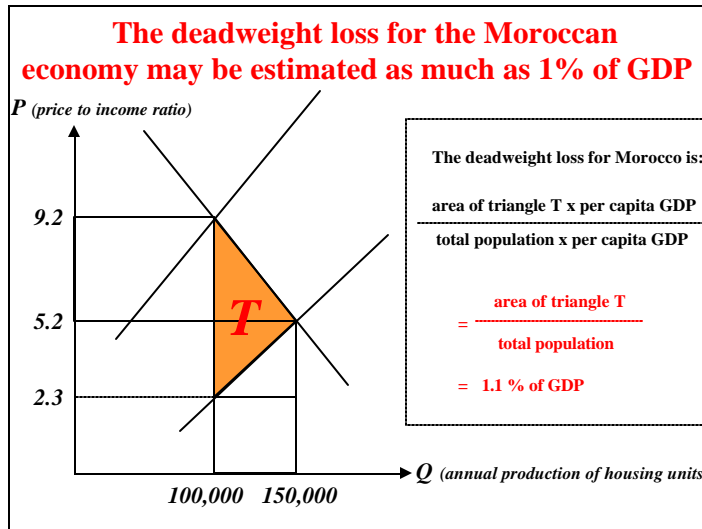
- in **Tunisia**, the house price-to-income ratio is 5.2 and formal housing production covers 100% of the housing needs ;
- in **Morocco**, the house price-to-income ratio is 9.2 and annual housing production of 100,000 units represents about two thirds of the desired flow (150,000 units) ;

Suppose that housing supply in Morocco is as efficient as it is in Tunisia i.e. that housing is as affordable and that 100% of the housing needs can be met by production.

What welfare gains could be made?

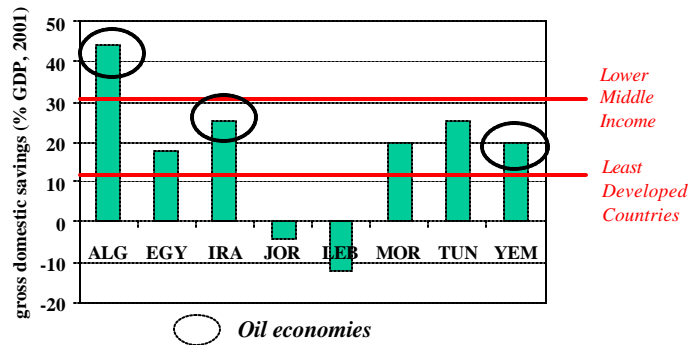
Assumption: distortive housing policies in Morocco are equivalent to a tax shifting the supply curve up





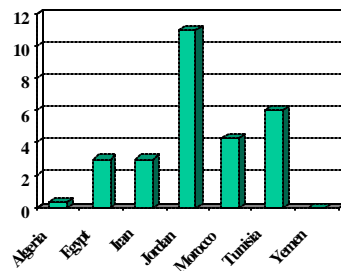
2. Savings in MNA countries are lower than comparators' except for oil economies

Source: World Development Indicators



Development of mortgage markets

Outstanding housing credits to GDP (%)



There is empirical evidence that homeownership stimulates savings to pay for down-payments and reimburse mortgage loans

But what happens when real house prices continue to rise and borrowing is difficult like in most MNA countries where mortgage markets remain under-developed?

**Development of housing finance
 and aggregate saving rates in MENA countries**

Development of Mortgage Markets

		Rather developed	Starting	Undeveloped
Savings	Low	Jordan	Lebanon, Egypt, Morocco	
	Average		Tunisia, Iran	
	High			Algeria, Yemen

3. Factor productivity:

**How could Algeria improve productivity
 through a more efficient housing sector?**

- 3 countries (*Algeria, Iran, Yemen*) will require **dramatic productivity changes** if they want to meet the employment challenge caused by high demographics (Dhonte, Bhattacharya and Yousef);
- In *Algeria*, halving today's unemployment rate of 29% by 2015 will require **major progress in productivity**;
- *Algeria's* capital intensity is extremely high (12.5 ICOR compared to 3.7 in Egypt)

	1973-94	2000-15	Progress needed to cut unemployment
TFP growth	- 3.4%	0.2%	+ 3.6%

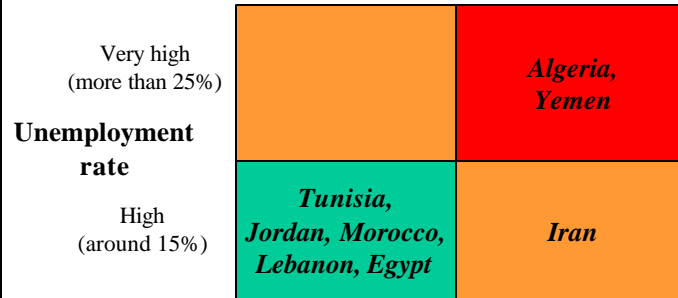
**Interpretation and consequences
 for employment in Algeria**

- Algeria's challenge is **not resources' availability but how to use available resources more efficiently** (increase productivity). Because housing is expensive, there is excessive capital accumulation in the housing sector, especially when compared to the production level.
- A more efficient housing sector would help Algeria reach **greater efficiency in the use of capital**.
- Halving unemployment by 2015 implies creating around 1.6 million jobs.
- Assuming job creation is a linear function of productivity changes, it is estimated that the 10% productivity gains that could be achieved from a more efficient housing sector could help create **160,000 new jobs** by 2015.

In which countries the employment challenge will require dramatic reforms?

Change in productivity and investment required to halve unemployment by 2015

No or minor change Dramatic change needed



**4. Housing and Poverty Reduction:
 Tracing the links and simulating the poverty effects**

Why may housing costs have such poverty reduction effects?

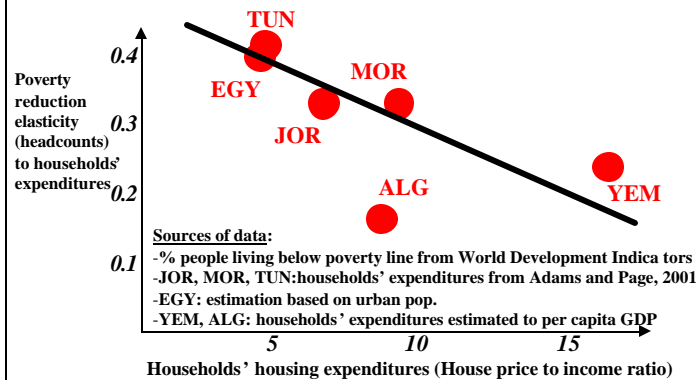
DIRECT EFFECTS:

- For many moderate and low-income households, **housing is the largest expenditure item** (50-70 percent) in their limited budget ;
- If housing becomes more affordable, more resources will be available to the poor for non-housing expenses (e.g. create small business) and it will become **easier to exit poverty** ;

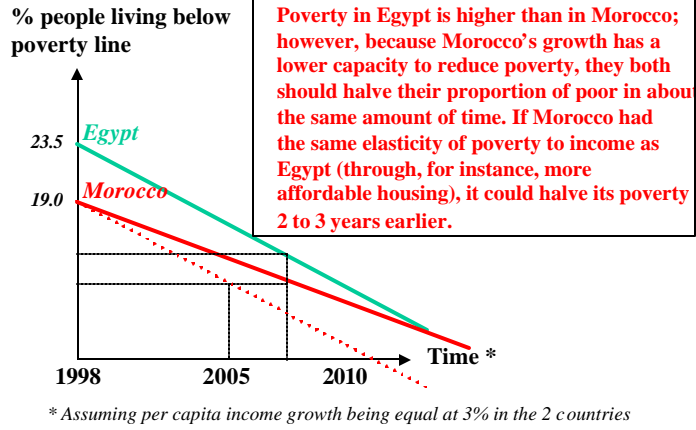
INDIRECT EFFECTS:

- **Better housing conditions** will become more affordable to the poor with indirect consequences on **health** and **education of children**
- A growing housing sector means more **employment opportunities** for the poor because of the need for unskilled labor;
- Housing is **an asset** for the poor (even a productive asset in certain Cases) ; it **reduces the vulnerability** of the poor.

The MENA countries which have been the most successful in using households' income growth to reduce poverty are also the ones where housing is the most affordable

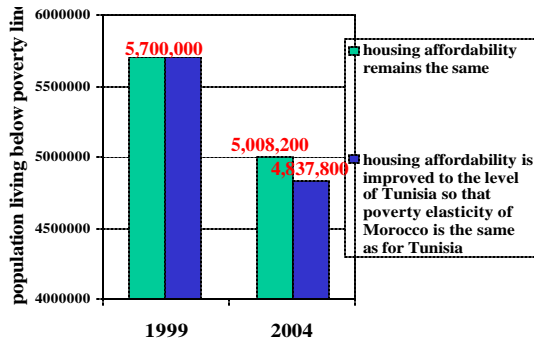


A thought experiment: what could lower house prices mean for poverty reduction in Morocco and in Egypt?



Another thought experiment: How many poor less in Morocco if housing was as affordable as in Tunisia?

In 5 years, 170,400 additional people could be lifted out of poverty.



Assume: - house price to income ratio of MOR = TUN;
 - MOR households' expenditure growth = constant; and
 - that housing costs have the assumed relationship to poverty elasticities

Annex 4

Country Indicators Used in the Study

Countries

Algeria

Egypt

Iran

Jordan

Lebanon

Morocco

Tunisia

Yemen

Definition of Housing Supply Indicators

List of sources

Algeria

Housing demand indicators		
Per capita GDP (PPP, 2001)		5 319
Average annual per capita GDP growth (% , 1997-2001)		1.0
Health, education, housing, social security and welfare (% total expenditures)		49 (1999)
Population age 20-29 (% total pop., 2000)		19
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	36
	between 2000 and 2010 (estimate)	27
Urban population (% total population, 2001)		58
Annual urban population growth (%)	average 1992 - 2001	3.0
	average 1997 - 2001	2.6
Inflation rate (%)	1993	20.5
	1997	5.7
	2000	0.3

Housing Supply Indicators ³⁰		
House price to income ratio		8.1 (2002 est.)
Rent to income ratio		10 (1998)
Floor area per person (square meter)		8.5 (1993)
Housing credit portfolio		6.5% (2001)
Ratio of mortgage loans to GDP		1.2% (2000)
Land price to income ratio (price of developed land)		-
Informal housing stock		20% (2002)
Public housing stock		25% (1993, 2000)
City Primacy level (%)		10 (2000) "Too little Primacy"
Standard deviation		2
Other indicators		
Total population (2001)		30 893 800
Unemployment rate (% , latest available official estimate)		28.0
Gross domestic savings (% GDP, 2001)		44
Workers remittances in GDP (% , 1999)		-
Population living below national poverty line (%)		14 (1995)
Poverty elasticity to households' expenditures		-0.17 (1990-1995)
Oil and gas revenues (% exports, 2001)		38
Construction sector as a % GDP		8.7% (2000) including public sector works 10.7 (1992-97 average)
Construction sector employment		15.2% of total work force (1999) including public sector works

³⁰ Definitions of the indicators are presented at the end of this report.

Egypt

Housing demand indicators		
Per capita GDP (PPP, 2001)		3 750
Average annual per capita GDP growth (% , 1997-2001)		3.0
Health, education, housing, social security and welfare (% total expenditures)		24 (1997)
Population age 20-29 (% total pop., 2000)		18
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	30
	between 2000 and 2010 (estimate)	20
Urban population (% total population, 2001)		43
Annual urban population growth (%)	average 1992 - 2001	1.8
	average 1997 - 2001	1.8
Inflation rate (%)	1993	11.0
	1997	6.2
	2000	2.8

Housing Supply Indicators ³¹	
House price to income ratio	4.9 (1998)
Rent to income ratio	20% (1999)
Floor area per person (square meter)	12 (1993)
Housing credit portfolio	7.40% (1993)
Ratio of mortgage loans to GDP	3% (2000)
Land price to income ratio (price of developed land)	3 (1998)
Informal housing stock	30 - 60 (%) (different sources report different ratios)
Squatter housing stock	
Public housing stock	29% (1993 - 2002)
City Primacy level (%)	36 (2000) "Excessive Primacy" 2
Standard deviation	
Other indicators	
Total population (2001)	65 172 580
Unemployment rate (% , latest available official estimate)	12.0
Gross domestic savings (% GDP, 2001)	18
Workers remittances in GDP (% , 1999)	3.6
Population living below national poverty line (%)	22.5 (1996)
Poverty elasticity to households' expenditures	-0.40 (1982-1996)
Oil and gas revenues (% exports, 2001)	Non significant
Construction sector as a % GDP	5.2% (1997)
	5.6% (1999)
Construction sector employment	4.5 (1998)

³¹ Definitions of the indicators are presented at the end of this report.

Iran

Housing demand indicators		
Per capita GDP (PPP, 2001)		6 128
Average annual per capita GDP growth (% , 1997-2001)		2.0
Health, education, housing, social security and welfare (% total expenditures)		47 (2000)
Population age 20-29 (% total pop., 2000)		19
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	38
	between 2000 and 2010 (estimate)	40
Urban population (% total population, 2001)		65
Annual urban population growth (%)	average 1992 – 2001	2.9
	average 1997 – 2001	2.8
Inflation rate (%)	1993	22.9
	1997	17.3
	2000	12.6

Housing Supply Indicators ³²	
House price to income ratio (2000/2001)	9 (2002)
Rent to income ratio	20% (2002)
Floor area per person	21 (2002)
Housing credit portfolio	-
Ratio of mortgage loans to GDP	2.8% (2001)
Land price to income ratio (price of developed land)	5 (2002)
Informal housing stock (%)	25-30%
Public housing stock (%)	Negligible
City Primacy level (%)	18 “Little primacy”
Standard deviation	1
Other indicators	
Total population (2001)	64 657 580
Unemployment rate (% , latest available official estimate)	14.0
Gross domestic savings (% GDP, 2001)	25
Workers remittances in GDP (% , 1999)	0
Population living below national poverty line (%)	-
Poverty elasticity to households' expenditures	-
Oil and gas revenues (% exports, 2001)	74
Construction sector as a % GDP	Housing sector 8.8%
Construction sector employment	Housing sector 11.3%

³² Definitions of the supply indicators are presented at the end of this report.

Jordan

Housing demand indicators		
Per capita GDP (PPP, 2001)		4 080
Average annual per capita GDP growth (% , 1997-2001)		0.4
Health, education, housing, social security and welfare (% total expenditures)		45 (2000)
Population age 20-29 (% total pop., 2000)		20
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	68
	between 2000 and 2010 (estimate)	21
Urban population (% total population, 2001)		79
Annual urban population growth (%)	average 1992 - 2001	4.3
	average 1997 - 2001	3.2
Inflation rate (%)	1993	3.3
	1997	3.0
	2000	0.7

Housing Supply Indicators ³³	
House price to income ratio	6.5 (1998)
Rent to income ratio	16,7 (1998)
Floor area per person	10 (1993)
Housing credit portfolio	19% (1999)
Ratio of mortgage loans to GDP	11% (1999)
Land price to income ratio (price of developed land)	0.15 (1998)
Informal housing stock (%)	10 (2002)
Squatter housing stock	1% (2002)
Public housing stock (%)	12 (1993)
	Almost 0% (2002)
City primacy level (%)	39 (2000) "Slightly excessive"
Standard deviation	1
Other indicators	
Total population (2001)	5 030 925
Unemployment rate (% , latest available official estimate)	15.0
Gross domestic savings (% GDP, 2001)	-4
Workers remittances in GDP (% , 1999)	18.0
Population living below national poverty line (%)	11.7 (1997)
Poverty elasticity to households' expenditures	-0.33 (1987-1997)
Oil and gas revenues (% exports, 2001)	Non significant
Construction sector as a % GDP	3.6% (1997-99)
Construction sector employment	7-10%

³³ Definitions of the indicators are presented at the end of this report.

Lebanon

Housing demand indicators		
Per capita GDP (PPP, 2001)		4391
Average annual per capita GDP growth (% , 1997-2001)		0.4
Health, education, housing, social security and welfare (% total expenditures)		49 (1999)
Population age 20-29 (% total pop., 2000)		23
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	48
	between 2000 and 2010 (estimate)	-17
Urban population (% total population, 2001)		90
Annual urban population growth (%)	average 1992 - 2001	2.3
	average 1997 - 2001	1.9
Inflation rate (%)	1993	24.7
	1997	7.7
	2000	0.4

Housing Supply Indicators³⁴		
House price to income ratio		9 (2002)
Rent to income ratio		-
Floor area per person (square meter)		10-12 (2003)
Housing credit portfolio		9 (1995) including credit for construction
Ratio of mortgage loans to GDP		4%
Land price to income ratio (price of developed land)		2 (1998)
Informal housing stock (%)		20-25% (2002)
Public housing stock (%)		Negligible 1%
Primacy rate (%)		53 (2000)
Standard deviation		3 Beirut has a special role as a finance and investment
Other indicators		
Total population (2001)		4 384 744
Unemployment rate (% , latest available official estimate)		11.5
Gross domestic savings (% GDP, 2001)		-12
Workers remittances in GDP (% , 1999)		-
Population living below national poverty line (%)		-
Poverty elasticity to households' expenditures		-
Oil and gas revenues (% exports, 2001)		Non significant
Construction sector as a % GDP		9.4 (2002) Housing sector's share: 4.2% (2002)
Construction sector employment (%)		11.6 (2002)

³⁴ See definitions of the indicators at the end of the report.

Morocco

Housing demand indicators		
Per capita GDP (PPP, 2001)		3 787
Average annual per capita GDP growth (% , 1997-2001)		0.8
Health, education, housing, social security and welfare (% total expenditures)		31 (1999)
Population age 20-29 (% total pop., 2000)		18
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	27
	between 2000 and 2010 (estimate)	21
Urban population (% total population, 2001)		56
Annual urban population growth (%)	average 1992 - 2001	3.1
	average 1997 - 2001	3.0
Inflation rate (%)	1993	5.2
	1997	1.0
	2000	1.9

Housing Supply Indicators ³⁵		
House price to income ratio		9.2 (1998)
Rent to income ratio		5 (1998)
Floor area per person (square meter)		6 (1993)
Housing credit portfolio		13 % (2001)
Ratio of mortgage loans to GDP		4 % (1997) 7% (2001)
Land price to income ratio (price of developed land)		-
Informal housing stock;		23% informal housing (2002)
Squatter housing stock		-
Public housing stock (%)		Negligible
Primacy rate (% of largest city population to total urban population)		22 (2000) – “optimal primacy”
Standard deviation.		0
Other indicators		
Total population (2001)		29 173 130
Unemployment rate (% , latest available official estimate)		13.0
Gross domestic savings (% GDP, 2001)		20
Workers remittances in GDP (% , 1999)		5.4
Population living below national poverty line (%)		19 (1999)
Poverty elasticity to households' expenditures		-0.33 (1985-1999)
Oil and gas revenues (% exports, 2001)		Non significant
Construction sector as a % GDP		5.7%
Construction sector employment		11%

³⁵ See the definition of supply indicators at the end of the report.

Tunisia

Housing demand indicators		
Per capita GDP (PPP, 2001)		6769
Average annual per capita GDP growth (% , 1997-2001)		4.0
Health, education, housing, social security and welfare (% total expenditures)		48 (2000)
Population age 20-29 (% total pop., 2000)		19
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	21
	between 2000 and 2010 (estimate)	12
Urban population (% total population, 2001)		66
Annual urban population growth (%)	average 1992 – 2001	2.7
	average 1997 – 2001	2.4
Inflation rate (%)	1993	4.0
	1997	3.7
	2000	3.0

Housing Supply Indicators ³⁶		
House price to income ratio		5.2 (1998)
Rent to income ratio		20.3 (1999)
Floor area per person (square meter)		6.5 (1993)
Housing credit portfolio		8.4 (1993)
		10.44 (2000)
Ratio of mortgage loans to GDP		5,9 (2000)
Land price to income ratio (price of developed land)		0.16 (1998)
Informal housing stock?		25 (2002) <i>slums are negligible</i>
Public housing stock (%)		8 (2002)
City primacy		30 (2000) “optimal primacy”
Standard deviation		0
Other indicators		
Total population (2001)		9 674 605
Unemployment rate (% , latest available official estimate)		15.0
Gross domestic savings (% GDP, 2001)		25
Workers remittances in GDP (% , 1999)		3.6
Population living below national poverty line (%)		7.6 (1995)
Poverty elasticity to households' expenditures		-0.41 (1985-1995)
Oil and gas revenues (% exports, 2001)		9
Construction sector as a % GDP		3.29 (2001)
Construction sector employment (%)		12.5 (1997)

³⁶ Definitions of supply indicators are presented at the end of the report.

Yemen

Housing demand indicators		
Per capita GDP (PPP, 2001)		812
Average annual per capita GDP growth (% , 1997-2001)		1.8
Health, education, housing, social security and welfare (% total expenditures)		27 (1999)
Population age 20-29 (% total pop., 2000)		16
Growth population age 20-29 (%)	between 1990 and 2000 (actual)	80
	between 2000 and 2010 (estimate)	56
Urban population (% total population, 2001)		25
Annual urban population growth (%)	average 1992 - 2001	3.9
	average 1997 - 2001	3.8
Inflation rate (%)	1993	62.4
	1997	4.6
	2000	10.9

Housing Supply Indicators ³⁷	
House price to income ratio	10- 17 (2000)
Rent to income ratio	25 (2000)
Floor area per person (sqm)	4
Housing credit portfolio	-
Ratio of mortgage loans to GDP	-
Land price to income ratio (price of developed land)	-
Informal housing stock (%)	30-35%
Public housing stock (%)	-
City primacy Standard deviation	30 (2000) "Slightly excessive primacy" 1
Other indicators	
Total population (2001)	17 989 950
Unemployment rate (% , latest available official estimate)	12.0% (unemployment) + 25.5%
Gross domestic savings (% GDP, 2001)	20
Workers remittances in GDP (% , 1999)	15.9
Population living below national poverty line (%)	23 (1997)
Poverty elasticity to households' expenditures	-0.25 (1992- 1997)
Oil and gas revenues (% exports, 2001)	88
Construction sector as a % GDP	-
Construction sector employment	-

³⁷ Definitions of supply indicators are presented at the end of this report.

Housing Supply Indicators Definitions

House price to income ratio: ratio of the median free-market price of a dwelling unit and the median annual household income.

Rent to income ratio: ratio of the median annual rent of a dwelling unit and the median annual household income of renters.

Floor area per person (sqm): median usable living space per person.

Housing credit portfolio: ratio of total mortgage loans to all outstanding loans in both commercial and government financial institutions.

Ratio of mortgage loans to GDP: ratio of total mortgage loans to Gross Domestic Product.

Land price to income ratio: it is the ratio between the median price of 1 sqm of developed land and median household income per month. Developed land is defined as the land with water, sewerage and roads.

Informal (unauthorized) housing stock: defined as the percentage of the total housing stock in the urban area which is not in compliance with current planning, land use and building regulations. Informal housing stock includes, but is not necessarily limited to, squatter housing stock, which means housing is built on an illegally occupied land.

Public housing stock: percentage of the total number of dwelling units in the urban area that is owned, managed and controlled by the public sector.

City primacy rate: the share country's largest city population in the national urban population.

List of sources

Indicators	Sources
Per capita GDP (PPP)	World Bank – <i>World Development Indicators</i>
Average annual per capita GDP growth (% , 1997-2001)	World Bank – <i>World Development Indicators</i>
Health, education, housing, social security and welfare (% total expenditures)	World Bank – <i>World Development Indicators</i>
Population age 20-29 (% total population)	US Bureau of Census
Growth population age 20-29 (%)	US Bureau of Census; for Yemen, growth for 1990-2000 comes for an extrapolation of growth for 1995-2000
Urban population (% total population)	World Bank – <i>World Development Indicators</i>
Annual urban population growth (%)	World Bank – <i>World Development Indicators</i>
Inflation rate (%)	IMF – Zubair Iqbal, <i>Macroeconomic Issues and Policies in the Middle-East and North Africa</i> , 2001
House price to income ratio	UN- Habitat Urban Indicators 1998. For Iran – Iran Sector Work 2002 ; for Yemen – Draft report by Diamond and Jordan 2000; For Algeria estimations from various reports
Rent to income ratio	UN- Habitat Urban Indicators 1998 - For Iran – Iran Sector Work 2002 ; for Yemen – Draft report by Diamond and Jordan 2000
Floor area per person	UN- Habitat and World Bank Housing Indicators 1993; For Lebanon Housing report by local consultant 2002; Yemen Diamond and Jordan Report 2000
Housing credit portfolio	UN Habitat and World Bank Indicators 1993 and Project PADs and ICRs and IMF working paper Erbas and Nothaft 2002.
Ratio of mortgage loans to GDP	IMF working paper Erbas and Nothaft 2002; Project PADs and ICRs
Land development multiplier Unauthorized housing stock (%)	UN- Habitat Urban Indicators 1998 - For Iran – Iran Sector Work 2002 Housing and land questionnaires filed out in countries in collaboration with housing officials 2002/03; and UN-Habitat and WB indicators 1993
Public housing stock (%)	Housing and land questionnaires filed out in countries in collaboration with housing officials 2002/03; and UN-Habitat and WB indicators 1993
City primacy levels and standard deviations	World Bank – <i>World Development Indicators</i> ; standard deviations and primacy levels are adjusted from Henderson (2000)
Construction sector as a % of GDP	World Bank – <i>World Development Indicators</i> ; and Project PADs and ICRs
Construction sector role in employment	World Bank – <i>World Development Indicators</i> ; and Project PADs and ICRs
Total population	World Bank – <i>World Development Indicators</i>
Unemployment rate (%)	For Algeria, Egypt, Iran, Jordan, Morocco and Tunisia, source is IMF – Pierre Dhonte, Rina Bhattacharya, and Tarik Yousef, <i>Demographic transition in the Middle East: Implications for Growth, Employment, and Housing</i> , 2000; for Yemen, source is PRSP; for Lebanon.
Gross domestic savings (% GDP)	World Bank - <i>World Development Indicators</i>
Workers remittances in GDP (%)	World Bank - <i>World Development Indicators</i>
Population living below national poverty line (%)	For Egypt, Jordan, Morocco and Tunisia, source is World Bank – Richard Adams and John Page, <i>Holding the Line: Poverty Reduction in the Middle East and North Africa, 1970-2000</i> ; for Algeria, source is World Bank – <i>World Development Indicators</i> ; for Yemen, source is World Bank – Abdulkarim AlArhabi, <i>Poverty and Social Risk Management in Yemen</i>
Poverty elasticity to households' expenditures	Elasticities are calculated using poverty headcounts (see above) and households expenditures figures from World Bank - Richard Adams and John Page, <i>Holding the Line: Poverty Reduction in the Middle East and North Africa, 1970-2000</i> ; for Jordan, Morocco and Tunisia, elasticity is based on total population while for Egypt, elasticity is based on urban population figures ; for Yemen and Algeria, we used GNI per capita (Atlas method, current USD) as a proxy for households expenditures
Oil and gas revenues (% exports)	World Bank – <i>Countries at a glance</i>