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The Role of Affordable Mortgages in Improving Living Standards and Stimulating Growth: A Survey of Selected MENA Countries

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The Role of Affordable Mortgages in Improving Living Standards and Stimulating Growth: A Survey of Selected MENA Countries

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Abstract

This paper argues that making affordable home mortgage loans available to a large cross section of the population will serve both the redistributive and growth-enhancing objectives of poverty reduction policies. The current state of housing and mortgage markets in selected Middle East and North Africa (MENA) countries (Algeria, Egypt, Jordan, Morocco, and Tunisia) is examined. The study evaluates Turkey and Mexico as middle-income comparator countries. Historical experience of the United States is also described. Simulations based on U.S. parameters provide some guide to the effects on economic growth of alleviating housing shortages by improving access to mortgage financing.

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I. Introduction

Recent policies in developing countries have focused on growth enhancement and improving living standards. This paper argues that making affordable home mortgage loans available to a large cross section of the population can serve both the redistributive and growth-enhancing objectives.

Broadly, the achievement of redistributive and growth-enhancing policy objectives through widespread availability of affordable mortgages is due to two reasons. First, programs to extend home mortgage lending to social groups that cannot otherwise afford mortgages have an important subsidy element in the form of preferential interest rates and tax treatment in many developing and advanced mortgage markets. International experience suggests that widespread availability of home mortgages has a favorable impact on the quality of housing, infrastructure, and urbanization, in short, on improving living standards and alleviating poverty.[2]

Secondly, widespread availability of affordable mortgages may enhance savings, promote financial market development, and stimulate investment in the housing sector. Furthermore, evidence from developed countries suggests that increased access to affordable mortgages produces positive externalities for low- and middle-income groups who already own dwellings. This is because mortgage availability for such groups has stimulated upgrading the existing properties and investment in other ventures, such as shops. Positive externalities emanating from mortgage availability tend to enhance medium- to long-term growth, especially in developing countries with high population growth and largely young populations. At the same time, housing construction in most developing countries is labor-intensive. Consequently, mortgage availability for lower income groups can also potentially enhance employment through an expansion of housing construction and related service sectors, such as real estate brokerage and insurance. On the other hand, the import component of quality housing in developing countries can be relatively large. However, the possible negative impact on the usually fragile balance of payments position in developing countries could be mitigated through encouraging the growth of domestic construction materials industries.

Notwithstanding recent initiatives, in most countries in the Middle East and North Africa (MENA) region, home mortgage finance facilities are broadly inadequate and virtually

[2]It has further been argued that home mortgage availability, by increasing home ownership, may help improve the quality of citizenship and community life. Home mortgage availability for lower-income families provides important incentives—the incentives of ownership in a much broader sense than ownership of property. Such ownership extends beyond better maintenance and protection of property into germinating and fostering a better citizenry, homesteaders who demand better infrastructure, better police protection, better schools, more green space, or, simply better communities and a better quality of life.

nonexistent for low- and middle-income groups. These countries have high population growth rates and a large proportion of the population is young. Housing shortages, especially for low-income housing, are a serious problem, both economically and socially. Developing mortgage markets and, in particular, extending affordable mortgage facilities through market-based incentives to low- and middle-income groups in the MENA countries can be expected to have a great positive impact on the living standards without creating major market distortions, and, at the same time, to enhance growth and employment, at least in the construction sector. In view of the demographic trends in the MENA countries, enabling access to affordable mortgage financing by low- and middle-income groups will have a sustained, favorable impact on growth and employment over the long term.

Section II of this paper provides a brief review of the rationale and practices in making affordable mortgages available for a large section of the population. Affordability is defined in terms of low down payment requirements during the initial purchase of a dwelling and low interest rates over a long period of mortgage maturity to make the monthly payment a smaller portion of income.

In the United States, the widespread availability of low-cost home mortgages has been successful in meeting the policy objectives of promoting homeownership and improving the quality and size of the housing stock. The U. S. experience has been a successful one of using tax incentives, governmental guarantees, and federally chartered private-sector companies to develop vibrant primary and secondary mortgage markets. The U.S. experience is reviewed in Section III.

Against that background, Section III also reviews the present state of the mortgage markets, institutions and policies in selected MENA countries, and assesses their shortcomings in reaching a large cross section of the society.[3,4] In addition, Turkey and Mexico are chosen as middle-income comparator countries; Turkey has a less developed home mortgage market, and Mexico has a more developed one.

Section IV provides a simulation, based on a range of parameters, that sheds some light on the growth and employment potential of making affordable mortgages available to a large cross section of the society. Although data limitations do not permit this simulation to be adapted to the selected MENA countries, it is useful for making a first-order assessment of the extent to which those countries might benefit from following policies to promote home mortgage availability.

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[3]Most housing in the oil-producing Gulf States is provided through heavy subsidization included in the budget (very low interest loans, budgetary transfers to first-time buyers), which, by the standards of those countries, appears more affordable than in the five selected MENA countries that are the focus of this paper.

[4]The MENA countries are: Algeria, Egypt, Jordan, Morocco, and Tunisia.

The paper concludes with some policy recommendations that might be useful in the MENA countries for programs aimed at developing mortgage markets, improving living standards, and enhancing growth and employment.

II. Affordable Mortgages, Homeownership, and Improving Living Standards

This section reviews the basic rationale and arguments for policies to promote widespread access to affordable mortgages.

Lower Income Households have Limited Access to Mortgage Markets

While access to mortgage financing by low-income families is limited even in some developed financial markets, limited access even by middle-income families is a fact in many developing countries, including those in the MENA region. Homeownership prospects for such households may be limited for a number of reasons. First, households may be constrained in their financing in two ways: inability to afford a minimum down payment—especially in the case of low-income households—and inability to access capital markets for long-term mortgage loans—in the case of both low- and middle-income households in most developing countries. Reducing these liquidity constraints while maintaining an acceptable level of credit risk broadly defines the core of the policies that promote affordable mortgage availability. Secondly, whether actually justified or not, a large portion of households may be perceived as poor credit risks by lenders. Finally, private mortgage markets may not permit access to affordable mortgages because of market failures.

Mortgage market failure in providing financing for some households reflects high information costs to assess and differentiate credit risk. This may result in adverse selection and credit rationing in favor of high-income households by the existing mortgage lending institutions. Consequently, in many developing countries, as well as those in the MENA region, housing markets tend to have an ample supply of high-income housing but a shortage of low- and middle-income housing.

Lack of well-defined legal procedures for enforcing claims, curing defaults and evicting former owners of foreclosed property serve to stunt development of housing finance. Similar reasons may result in lack of mortgage and property insurance. Furthermore, restricted availability of usable land and a lack of basic infrastructure drives up supply costs for affordable housing.[5]

[5]These problems are common in most developing countries; see World Bank (1993a).

Incentive-Based Subsidization is Superior to Direct Subsidies

As emphasized in IMF programs, the incentive-based approach to subsidization is more efficient than direct subsidization because it creates smaller market distortions and can be better targeted. An important aspect of policies to improve living standards is incentive-based income redistribution through financial markets. Similarly, incentive-based subsidization by extending affordable mortgages to low- and middle-income groups through developing market-based financial mechanisms can achieve a significant degree of poverty reduction and an overall improvement in living standards, while direct housing subsidies may have unintended adverse consequences.[6]

Better targeted housing subsidies have important macroeconomic consequences in fiscal restructuring and rationalizing off-budget subsidies—as most housing subsidies tend to be, for example, below-market loans by state-owned financial institutions. Thus, housing subsidies in many countries have come to be intertwined with housing finance and have not been successful in reaching the targeted groups. In addition, subsidization has resulted in large distortions in financial markets. Accordingly, Duebel (2000) argues that finance of housing should be separated from subsidization to increase homeownership. Subsidies generally hamper the development of mortgage markets, and mortgage market reforms should begin with reducing and rationalizing existing subsidies. Market-based subsidies should be linked to household savings through down payment requirements, and they should be sunsetted. Similarly, Buckley (1996), among others, recommends subsidization through mortgage indexing with respect to real wages and inflation (see below).

Government Policies

In developed, as well as developing financial markets, government intervention through direct or indirect subsidization and market regulation by fiat have become the norm to channel mortgage financing and insurance to a large portion of households. In general, such government policies have had the dual objective of stimulating (or forcing) household savings and channeling them to the housing sector. When feasible and successful, implementation of policies toward achieving this dual objective may be an important policy program that combines redistributive policies and growth-enhancing policies for improving living standards.

However, in most developing countries in the last few decades, government housing policies were conducted through heavily subsidized and insolvent public sector housing institutions.[7] Such public institutions were often poorly organized and politically manipulated,

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[6]The ill-effects—and sometimes disastrous consequences—of public housing and rent control—creation of ghettoes, rising crime, low maintenance, deterioration of neighborhoods—are not newly discovered urban maladies resulting from direct housing subsidies to the poor.

[7]See World Bank (1993a), Buckley (1996, 1999) and, for specific country cases a decade ago, see Shidlo (1990). On the other hand, Jones and Datta (1999, Chapter 1) emphasize that, while

(continued...)

and were generally unable to enforce a wide collection of loans that were in default (Jones and Datta, 1999, Chapter 1). In the process, these institutions proved to be financially unsustainable. This development necessitated that governments use more market-oriented housing policies through developing mortgage finance markets and opening up the existing mortgage finance institutions to market competition. Consequently, housing finance has become a policy priority in many countries and some reforms are being undertaken, including those in the selected MENA countries. The policy emphasis has shifted from public sector housing institutions to market-based financial intermediaries and savings mobilization through ensuring positive real returns to savings.[8] Most reforms involved improvements in land tenure and property rights legislation, removal of restrictions on mortgage lending and housing construction, mandatory requirements to increase mortgage lending by commercial banks, improving transparency of public mortgage lending institutions, mortgage repayment indexation (to real wages and inflation), and improvements in recovery of loans.[9]

Buckley (1999) emphasizes that such policies are consistent with the broader objective of financial sector development and liberalization, and with budgetary structuring and better targeting of subsidies.

Savings, Employment, Growth Enhancement, and Balance of Payments

Well-known arguments, already on the IMF agenda, for budgetary affordability and better targeting of various subsidies within the framework of a well-designed social safety net, also apply to mortgage schemes targeted for low- and middle-income households. But can affordable mortgages also stimulating additional savings and growth?

Numerous studies have addressed this question by examining the relationship between borrowing constraints and saving rates.[10] As already noted, market failures are possible even in

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there is evidence for a link between on lack of financial depth and housing investment, it is also possible that precisely the lack of financial depth (absence of financial instruments) may increase investment in housing.

[8]Indeed, World Bank involvement in this area has increased in the last decade both in terms of technical advice and loans. Buckley (1999) reports that the World Bank approach is to enable markets to work by channeling housing finance project loans to financial intermediaries rather than to public sector housing authorities. Almost 80 percent of the housing projects that received World Bank financing attempt to promote savings mobilization.

[9]See the case study by Siembada and Moreno (1999) on Mexico and the housing finance reforms and developments in that country.

[10]For a review of the literature and some empirical results for some MENA countries, see Li (2001).

developed financial markets, and this fact places the arguments on the relationship between borrowing constraints and saving in a second-best context. In the second-best environment of financial market repression (or, lack of financial markets), return to saving is often very low or even negative. Financial sector development and liberalization can ensure positive returns to savings by improving market efficiency and lowering financing costs, and can stimulate higher savings.

Li (2001) has argued that, for most low- and middle-income households, purchase of a home represents the largest share of household saving and investment. Li's simulations indicate that, when borrowing constraints are very restrictive—as in most MENA and other developing countries—households may defer or even forsake purchase of a home, and attain a certain utility maximizing allocation of consumption and saving where saving is lower than it would be, if households had access to mortgage financing.

Buckley (1996) argues that developing mortgage markets is likely to have a favorable impact on savings mobilization for a number of reasons that are relevant for the selected MENA countries: (a) return to housing is likely to reward saving by ensuring positive returns, and such returns will probably remain high due to rapid urbanization (because of rapid population growth, housing markets have a large growth potential which could be tapped only with the development of mortgage markets); (b) housing provides the best and most secure collateral against market fluctuations and other borrowing, and yields a positive rate of return, at least in the long run; (c) housing prices are less volatile than prices of other assets (for example, financial assets); (d) availability of housing increases labor mobility, hence employment potential; (e) general subsidies in many countries could be better targeted through housing and mortgage markets.

Many studies have recognized the potential for increasing employment through developing mortgage markets to finance housing construction in developing countries. A United Nations study (1995) noted that, in most developing countries, construction of low-income housing is labor intensive and housing construction in general has a high multiplier (with a value of two to three); the latter reflects the large infrastructural investment (roads, electricity, sewerage, water) that may be generated with supporting housing policies. However, on average, housing construction initiatives in many developing countries have tended to be capital intensive and dominated by imported materials; as a result, this sector has employed a small percentage of the labor force. Furthermore, the import share of construction has grown.[11]

On the supply side, in many developing countries, state monopolies dominated construction materials sectors, and, high tariffs on imported materials have resulted in higher

[11]See selected MENA countries in comparison to the United States in Section III. A United Nations study (1995) reports that, in the late 1980s, only 3 percent of the working population was employed in the construction sector in least developed countries; in smaller developing countries, import share of construction averaged about 20 percent.

construction costs and have restricted timely supply of materials. Consequently, in the process of developing mortgage markets and encouraging construction sector growth, the viability of employment generation while maintaining balance of payments stability hinges on two important supporting policies. First, labor-intensive construction methods should be preferred. Secondly, the share of domestic materials should be increased in the construction sector; this requires development of competitive domestic construction materials industries, while trade barriers are eliminated. In addition, subsidization should be targeted to lower income housing which has a higher labor intensity and lower import component.

Conclusions

Broadly, the factors discussed above are the main factors behind the dearth of mortgage financing and insurance and the corresponding shortage of low- and middle-income housing in the MENA countries. Addressing this need can serve to increase savings and investment, promote growth and employment, and result in a significant improvement in living standards by addressing the growing shortage of quality housing in those countries.

III. An Overview of Housing Markets in the United States, Selected MENA Countries, and Two Middle-Income Comparator Countries

A. The U.S. Experience

The housing markets in the United States broadly meet the criteria proposed by the World Bank to define a well-functioning housing market (Appendix II). The U.S. experience is illustrative of the benefits of a carefully constructed government-private partnership to promote widespread affordable home ownership. Policy makers in the United States have long considered these two features—affordable housing and home ownership—as important barometers of the success of various initiatives. A review of the advanced U.S. housing mortgage market and its evolution will be useful for identifying the shortfalls and related policy issues in the selected MENA countries.

A brief history of developments

Support for home ownership in the United States can be traced back at least to the introduction of the federal income tax in 1913, which provided for the deduction of mortgage-interest payments for owner-occupied homes, effectively reducing the mortgage cost for home owners. Nonetheless, the U.S. homeownership rate remained around 40 percent up to the 1930s, and while home mortgage loans were generally available, credit access was more difficult for lower-income families and during the liquidity crunches that characterized the pre-New Deal banking sector. Home mortgage loans up to that time were generally short-term "balloon" loans (typically, up to five years). Liquidity crises at the time the "balloon" was due could trigger significant foreclosures, as occurred during the 1930s.

The New Deal response had several attributes. The U.S. government created federally-backed deposit insurance to bolster commercial banks and savings institutions; it created a liquidity facility for savings institutions (the Federal Home Loan Bank System); established federally-backed mortgage insurance (the Federal Housing Administration, or FHA); and provided liquidity for this new function through a secondary market outlet—the Federal National Mortgage Association, currently known as Fannie Mae.

The net result of these activities was to provide a lower cost, more affordable, and more stable home mortgage market in the United States. These programs established the thirty-year, fixed-rate mortgage as the loan of choice in the United States and helped to boost the U.S. homeownership rate by 50 percent by 1960. At the end of 2000, the U.S. homeownership rate stood at 68 percent with US$5 trillion in home mortgage debt outstanding.[12]

Favorable impact on savings and other positive externalities of affordable mortgages

Empirical research has supported the policy focus on the importance of home ownership. Widespread availability of home mortgages through efficient financial markets has had a favorable impact on poverty reduction, improved income distribution, created positive externalities through improving home quality and maintenance, and even promoted better citizenship.[13] Furthermore, home ownership has promoted household wealth accumulation for lower-income families by enabling them to more readily build wealth through home equity growth. Survey research conducted by the Board of Governors of the Federal Reserve System shows that home equity accounts for about one-half of household net wealth, with higher percentages for lower-income households.[14]

Policies to extend the range of access to affordable mortgages

In addition to creating a financial system that was more conducive to home mortgage lending, ongoing policy concerns continue to focus on the adequate provision of mortgage credit to lower-income families and families residing in lower-income areas, who have been felt to be underserved by the financial system. Federal efforts aimed at financial institutions intensified during the 1970s with legislation and regulations to encourage lending to lower-income families and neighborhoods. The Home Mortgage Disclosure Act (1975) and the Community Reinvestment Act (1977) targeted financial institutions in the primary, or lending, market. Regulations promulgated by the U.S. Department of Housing and Urban Development (1978) sought to ensure that government-sponsored enterprises operating in the

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[12]Data are from the U.S. Census Bureau and the Board of Governors of the Federal Reserve System.

[13]For example, see Stryuk (1977), Galster (1983), Burns (1988), Green and White (1997), Glaser and Di Pasquale (1998), Boehm and Schlottman (2001), and Rohe, McCarthy and Van Zandt (2000).

[14]See Nothaft (2000) and Nothaft and Surette (2000).

secondary market also facilitated lending to lower-income households and areas deemed to be underserved by the housing finance system.

The federal government has also provided direct support to the lowest-income households through subsidies in the rental market. Rent subsidies are provided to the poorest households. In addition, as a part of the Great Society initiative of the 1960s, the federal government built apartment projects to increase the supply of low-income housing. This latter production program was found to be relatively costly to produce, and housing quality deteriorated over time; the concentration of the poorest families in housing projects also had a variety of negative externalities on the surrounding communities. Federal housing production programs were largely suspended in the 1980s in favor of tax-credit incentives to encourage private-sector development of low-income housing.

The U.S. experience: Conclusion

The U.S. experience is consistent with the tenet of this paper, that is, that governmental activities to encourage credit access and an efficient mortgage delivery system go a long way toward promoting the dual public policy objectives of more equal wealth distribution and a higher-quality, affordable housing stock. Furthermore, direct governmental housing production programs have generally been found to be less efficient than private-sector tax incentives in developing affordable housing.

B. An Overview of the Selected MENA Countries

Our selection among the MENA countries for the purposes of this study is based on data availability, on recent initiation of policies to stimulate mortgage finance markets, and on the level of development and demography. These factors make the selected countries good candidates for addressing their growing affordable housing needs through further developing residential mortgage markets.

Demography and potential demand for housing

A rapidly expanding population skewed at the younger end of the distribution has been the norm in all MENA countries in the past two decades. Underscoring those demographic trends, Dhonte and others (2000) found a large gap between housing supply and demand, with the present rate of construction in MENA countries meeting less than 20 percent of the estimated demand.

The demographic characteristics of the selected MENA countries indicate that potential housing demand in those countries will remain high for the next 25 years. Based on the population trends in Appendix Table 1 and assuming an average household size of five to six persons, the potential demand for housing units can be calculated as in Table 1 below.

Table 1. Potential Demand for Housing Units in Selected MENA Countries

	1990–95	2000–05	1995–2025
	(in thousands per year)		
Algeria	109	118	117
Egypt	241	228	229
Jordan	43	38	44
Morocco	98	87	91
Tunisia	30	28	29
Total	521	500	511

Source: Appendix Table 1 and authors' estimates.

Furthermore, reflecting the age composition of the populations, the working age population can be anticipated to grow at a higher rate than the overall population growth rates in the next quarter century (Appendix Tables 2 and 3).

Urbanization and urban poverty

As Appendix Table 3 shows, the selected MENA countries will become largely urban societies within the next 25 years (71 percent of Jordan's population already lives in urban areas). This indicates that most housing demand will concentrate in urban areas. Appendix Table 4 shows that the significant share of overall poverty is urban poverty. It is likely that the share of urban poverty will rise as urbanization rises, unless the housing availability and conditions for the urban population are improved. Furthermore, through the urbanization process, increase in urban poverty is likely to reflect rising unauthorized and squatter housing without access to basic urban services such as sewerage, water, garbage collection, electricity, even though at present access to such services appears to be satisfactory.[15] Therefore, appropriate housing policies through developing mortgage markets accessible to lower income households can have a great impact on poverty reduction and quality of life for low- and middle-income households.

Housing conditions and markets: A decade ago

Based on the data provided in the World Bank's 1990 Housing Indicators Program, an overview of the selected MENA countries reveals the following salient facts (Table 2).

[15]In 1993, in Cairo, Amman, Rabat, and Tunis, an average of 85 percent of households had access to sewerage, 79 percent had access to waste removal, and nearly 100 percent had access to drinking water (World Bank Indicators of Economic Development, 2000).

Table 2. Selected MENA Countries and Comparators: Characteristics of Housing

	Per capita GDP (US$)	House price-to-income 1/	Housing Credit 2/	Owner Occupancy 3/ (percent)	Public Housing 4/	Informal Housing 5/	Persons per room
	(1992)		(1990)				
Algeria (Algiers)	2,060	12	0	45	25	4	2.6
Egypt (Cairo)	600	7	7	32	29	65	1.5
Morocco (Rabat)	950	7	7	46	15	16	2.3
Jordan (Amman)	1,240	3	19	75	12	15	3
Tunisia (Tunis)	1,440	6	6	67	15	29	1.9
USA (Washington, D.C.)	21,790	4	44	61	1	5	0.4
Turkey (Istanbul)	1,630	5	3	60	5	51	2
Mexico (Monterrey)	2,490	4	18	83	54	16	1.2

	Housing Production 6/ (per 1,000 persons)	Housing Investment 7/ (percent)	Import share of construction 8/ (percent)	Construction Cost 9/ (US$/m2)	Infrastructural expenditure 10/ (US$/capi)	Permit delays 11/ (months)	Foreclosure delays 12/ (months)
	(1990)						
Algeria (Algiers)	3	9	25	500	13	2	...
Egypt (Cairo)	11	8	19	67	27	3	24
Morocco (Rabat)	7	6	25	158	12	3	...
Jordan (Amman)	13	10	28	150	458	7	3
Tunisia (Tunis)	8	7	25	359	86	12	24
USA (Washington, D.C.)	7	2	2	500	...	36	5
Turkey (Istanbul)	7	8	10	110	...	2	6
Mexico (Monterrey)	6	7	...	267	14	3	6

Source: The Housing Indicators Program; UN Center for Human Settlements; and World Bank (1993).

1/ Ratio of median free-market prices of a dwelling unit and the median household income.
2/ Ratio of total mortgage loans to total loans in commercial and government financial institutions.
3/ Percentage in total of dwellings owned by occupants.
4/ Percentage in total of dwellings owned, managed, and controlled by public sector.
5/ Percentage in total of dwellings not in compliance with current regulations and those that occupy land illegally.
6/ Net number of units (units produced less units demolished) in both the formal and informal sector.
7/ Total investment in housing (formal and informal) as percentage of gross city product.
8/ Percentage share of residential construction materials which are imported.
9/ Present replacement cost (labor, materials, on-site infrastructure, management and contractor profits) per square meter of a median-priced unit.
10/ Total expenditure by all levels of government on roads, sewerage, water, drainage, electricity, and garbage collection.
11/ Median length of time to get approvals, permits, and titles for a 50–200 unit residential subdivision in an area at the urban fringe where residential development is permitted.
12/ Typical time from the start to finish of foreclosure (including eviction) on a seriously delinquent mortgage.

(1) High relative price of housing

House price-to-income ratio was high, 6 to 7 in Egypt, Morocco and Tunisia, and as high as 12 in Algeria; at 3, only Jordan's ratio compared well to the United States, Turkey and Mexico.

(2) Limited availability of mortgage financing

Ratio of total mortgage loans to total loans in commercial and government financial institutions was nonexistent in Algeria, in the range of 7 to 8 percent in Egypt, Morocco, and Tunisia, and relatively high at 19 percent in Jordan; this may be compared to the United States and Mexico, where the same ratio was 44 percent and 18 percent, respectively. However, with the exception of Algeria, housing credit in the selected MENA countries exceeded Turkey.

(3) Owner occupancy rate

Only in Jordan and Tunisia was the homeownership rate comparable to the prevailing rates in the comparator countries. In Algeria, Egypt and Morocco, this rate was significantly below that in the three comparator countries.

(4) Large share of public housing in total housing stock

Share of public housing in the total housing stock ranged from 12 percent in Jordan to 29 percent in Egypt. The public housing share was significantly in excess of that in the United States and Turkey but well below that in Mexico.

(5) Unauthorized and squatter housing

Share of unauthorized and squatter housing in the total housing stock ranged from 15 percent in Jordan to 65 percent in Egypt. In this area, only Egypt was comparable to Turkey, reflecting relatively high population in both countries. Morocco and Jordan were comparable to Mexico, with about 15 percent of total housing stock being unauthorized or squatter housing. Algeria was an exception at 4 percent, reflecting the large share of public housing in total. Total number of persons per room indicated a degree of crowding well above the United States but comparable to Turkey and Mexico.

(6) Housing production

Production was relatively high in Egypt and Jordan but was low in Algeria. A large portion of housing production represented informal housing production.

(7) Import share of housing construction

Import share ranged from 19 to 28 percent compared to 2 percent in the United States and 10 percent in Turkey. This may indicate monopoly restrictions in the supply of residential construction materials and high import tariffs on such imports.

(8) Construction costs and housing investment

With the exception of Egypt, construction costs exceeded those in Turkey. In Tunisia, costs were significantly higher than those in Mexico. In Algeria construction costs in absolute terms were so high that they equaled those in the United States. Housing investment was comparable to that in the middle-income comparators.

Housing conditions and markets: The current situation

Some relevant macroeconomic data in the selected MENA countries and the comparator countries are provided in Table 3.[16]

Tenure issues and legal background

Overall, there is a considerable legal vacuum in guaranteeing property rights and defining legal avenues for foreclosure, as well as red tape in the process of establishing land titles and acquiring building permits.[17]

Algeria

Algeria has experienced a deterioration in the quality of living standards, with urban poverty rising from 8 to 15 percent of the population during 1988–95. Housing starts averaged about 100,000 units during 1990–95, which may be compared to the estimated annual increase in demand of 109,000 units in Table 1. Housing starts picked up substantially since 1994, reflecting low-income housing programs initiated by the Government; housing starts rose steadily from 118,700 units in 1994 to 171,000 units in 1999, corresponding to an yearly average rate of 9 percent during the same period, well in excess of the estimated annual increase in demand. Shortage of construction materials (for example, cement) contributed to the housing shortage. Construction sector accounted for an average of about 10 percent of GDP during

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[16]This section is based on the information available from the *International Housing Finance Sourcebook, 2000* (forthcoming).

[17]For example, foreclosure takes two years in Egypt and Tunisia, relative to 5 to 6 months in the comparators (Table 2).

Table 3. Selected MENA Countries and Comparators: Basic Data

	GDP	GDP per capita	Gross savings		Net dom.	Gross Investment	
			Total	Private	savings	Total	Private
	1999						
	(US$ billion)	(US$)	(In percent of GDP)				
Algeria	46	1,552	0	45	25	4	2.6
Egypt	88	1,362	7	32	29	65	1.5
Morocco	8	1,452	7	46	15	16	2.3
Jordan	34	1,213	19	75	12	15	3
Tunisia	20	2,299	6	67	15	29	1.9
USA	9,299	34,091	44	61	1	5	0.4
Turkey	486	4,748	3	60	5	51	2
Mexico	185	2,801	18	83	54	16	1.2

	1997–99 average						
	Interest rate	Subsidy-to-current transfers	Construction sector % of GDP	Construction sector Growth	Overall growth	Unem-ployment	Inflation
	(In percent)						
Algeria [1]	10.9	26.0	10.2	2.1	3.1	27.1	4.4
Egypt [1]	9.1	15.0	5.6	9.9	5.7	8.7	4.9
Jordan [2]	12.7	9.0	3.6	-9.6	2.9	14.0	2.2
Morocco [3]	11.0	12.0	5.7	3.1	3.6	14.1	1.5
Tunisia [4]	6.5	29.0	4.5	6.4	5.5	...	3.2
United States [5]	8.3	60.0	4.0	5.0	4.3	4.6	2.0
Mexico [6]	18.3	51.0	3.8	10.0	5.1	3.2	17.7
Turkey [7]	91.0	29.0	5.9	-0.4	1.9	6.4	78.4

Source: MED and WEO.

1/ Three-month tresury bill rate.
2/ Prime rate.
3/ Only 1999 data; average of maximum and minimum lending rates.
4/ Money market rate.
5/ 1995–97 data; commercial bank prime loan rate.
6/ 1997–98 data; six month deposit rate.
7/ One-year deposit rate.

1997–99 and grew by about 2 percent per year; about 16 percent of a workforce of 7.8 million was employed in the construction and public works sectors.[18]

State-owned banks dominate housing finance; the principal supplier of housing is also a state-owned entity; similarly, low-cost housing is provided by state-owned entities.[19] There are no secondary markets for mortgage loans. The mortgage instrument used is a standard 20-year fixed rate instrument, with a 25 percent mortgage payment-to-income ratio. Mid-range incomes ranging from DA 10,500–14,150 per month correspond to a maximum monthly loan payment of DA 2,600–3,500; mortgage loan rates in 1999 were in the range of 9 to 10 percent. The World Bank has approved a US$150 million loan for low-income housing.

According to a World Bank study, commercial banks have little experience in mortgage financing because of such negative factors as unknown credit risks, high entry costs for originating and servicing loans, unreliable income data and high credits risks, and unclear property titles and unreliable mortgage collateral.[20] Some reforms are being undertaken to separate housing subsidies from housing finance. For example, the main public housing finance entity has been given financial autonomy, a housing credit refinance institution has been created, and a mortgage guaranty company has been established. Furthermore, new legislation was adopted with the aim of enhancing development of the private rental market and opening-up competition between real estate developers.[21]

Tariffs on construction materials produced domestically are generally high and their importation is restricted through policy instruments (administered prices, fees and charges); domestic production of construction materials is dominated mainly by public sector enterprises.

Egypt

At the beginning of the 1990s, housing remained inadequate, with many overcrowded and makeshift accommodations. However, in the second half of the past decade, Egypt experienced a housing boom reflecting economic recovery and liberalization. Construction sector growth averaged about 10 percent during 1997–99 and rose from 5.2 percent of GDP to 5.6 percent of GDP during the same period. Growth in the housing sector will continue to be spurred by government plans to invest up to LE 16 billion in new housing and LE 13 billion in

[18]In the 1990s, the share of housing investment amounted to 15 to 20 percent of total public investment and represented 8 percent of the budgetary outlays in 1999 (World Bank, 1999).

[19]Under the regulatory and pricing restrictions imposed on these entities, their solvency has seriously weakened (World Bank, 1999).

[20]Chiquier (1999); Hadiri (1993).

[21]World Bank (1999).

land reclamation during 1997–2003. With an estimated increase in housing demand of some 250,000–300,000 units per year, it is estimated that only 180,000 units, or 60 to 70 percent of the demand was met through formal housing construction in 1998; the rest of the dwellings were built in the informal sector. Of the 180,000 formal sector units, about 70 percent were classified as low-cost units, usually occupied by households with incomes up to LE 18,000 per year; half of those units were built under the subsidized housing program of the government.

Housing loans amount to a small portion of the assets of the Egyptian banking system. Specialized state-owned credit institutions extend most housing loans, with most of those loans going to a state-owned entity in charge of housing development. The most common form of purchase for nonsubsidized units is cash, typically with a deposit of 50 percent of the value of the unit with installment payments extended over 3 to 5 years. Individual loans are available up to 7 years at rates in the range of 14 to 15 percent, with a gross profit margin of 3 percent over the cost of funds. The minimum down payment required is 40 to 50 percent. The main limitation in the housing market is the absence of a proper mortgage law, which increases the risk of default and limits repossession of the property, as well as the length of the mortgage lending repayment period. There are no secondary markets for mortgage loans. A new mortgage law to regularize and expand mortgage markets is under consideration.[22]

Overall high tariffs also apply to construction materials and the construction materials sector is state dominated, although some industries have been privatized.

Jordan

The construction sector comprises about 4 percent of GDP and contracted significantly in 1998–99. About 15,000–16,000 housing permits were issued during 1998–99, which may be compared to the estimated housing demand of about 43,000 units. Until 1997, a state-owned bank was the principal supplier of housing loans; in that year, the Government removed the privileges of this entity, enabling other banks to enter the mortgage market. Residential mortgage loans by commercial banks represented 0.8 percent of projected GDP in 2000. Including institutional loans, private mortgage schemes (military and teacher funds), and loans to the state-owned entity that provides housing, the overall stock of mortgage loans amounted to 11 percent of GDP in 1999.

Existing rules that apply to lending limit the term of mortgage lending to at most 10 years and, while foreclosure is possible, the difficulty of eviction remains a significant concern for lenders.

Prevailing practices concerning land-use planning, zoning and subdivision and the complex regulatory environment add to the difficulties that low- to middle-income households face in purchasing and financing a home. Property registration under traditional arrangements

[22] See Diamond (1999).

between low- and moderate-income households remains prevalent due to the disincentives posed by the regulatory system and the property transfer tax; this practice tends to preclude development of clear title. Rent control and the near impossibility of eviction has contributed to rental housing shortages, deterioration in quality and sharp increases in rents to cover against risk; it is argued that rent controls also presented a disincentive to renters to build their own homes, even when they could afford one.[23]

Secondary markets are in the process of development since 1997. A mortgage refinance company was created in that year to provide liquidity facilities to commercial banks. Although the liquidity facility to commercial banks that extend mortgage loans was financed with World Bank involvement initially, this entity is now attracting its own funding through issuance of bonds in the market; in 1999, about JD 15 million three-year bonds had been issued. Mortgage loan insurance has been available since 1995 through a state-owned entity; such reinsurance reached JD 12 million by the end of 1998.[24]

In mid-1999, mortgage interest rates were in the range of 14 to 15 percent, including a 1 percent servicing fee. Most banks target low-risk customers and offer limited terms of 5 to 10 years, although in some cases the term is extended to 15 years. The minimum down payment ratio is 20 to 30 percent of the value of property. Other restrictions include a maximum limit on mortgage loans of JD 50,000, automatic payroll deductions, and third-party guarantee requirements.

Tariffs on construction materials are generally low (5 to 10 percent) or zero; there are no state monopolies in this sector, and the national cement factory was privatized in 1999. However, although housing enjoys significant tax exemptions, it has been estimated that taxes and duties on construction materials amount to as much as 30 percent of the building cost. Existing implicit and explicit housing subsidies include rent controls, income tax exemptions, property tax exemptions for rental property, user fees for infrastructure below market prices and lack of adequate enforcement, and special subsidies and exemptions for specific housing programs (budgetary subsidies to a housing agency, military and state-owned corporate housing); however, those subsidies do not appear to be well targeted and rationalized.[25]

Morocco

As of 1994, there were 4.1 million dwelling units, of which 2.3 million were in urban areas, which corresponded to about 7 persons per dwelling. The government estimated that new

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[23]PADCO (1999).

[24]For an earlier review of the prospects and issues in Jordan's secondary mortgage market, see Diamond (1996).

[25]PADCO (1999).

housing demand would grow by 184,000 units per year (twice the estimated 98,000 units per year for 1990–95), while only 60,000 to 80,000 units per year were being produced. This contributes to an estimated housing shortage of some 100,000 units per year. In 1997, about 82,700 units were constructed and 76,900 units were completed.

The mortgage sector in Morocco is small, with its loan stock amounting to about 4 percent of GDP; yearly growth is estimated at less than 1 percent of GDP. The private informal sector remains the predominant source of funding.

Until 1992, a state-owned institution was the exclusive body that provided mortgage financing, which accounted for 57 percent of the market in 1997; loans by this entity may be extended up to 15 years at an average rate of 11 percent. The other major lender is the central bank (Bank Al-Maghrib), accounting to 18 percent of the market. Bank loans have shorter terms and higher interest rates, and loans are funded by short-term deposits. The private sector has a 16 percent share and two societies for real estate credit account for the remainder of the market. There is no secondary market for mortgage loans. A new securitization law is under preparation to develop longer term housing finance facilities.

Housing markets are restrained by rigid urban regulations, insufficiently developed property registration, and limited access to land. A World Bank study (1995) found that many implicit and explicit subsidies are offered to the housing sector (income, registration, and property tax deductions; low interest rates; interest deductibility), however, such subsidies were in need of rationalization since they did not succeed in improving housing supply and, by and large, did not benefit lower income households.

Tariffs on construction materials available domestically are generally high (with the exception of cement), and domestic production is mainly by public sector enterprises.

Tunisia [26]

During 1975–90, Tunisia's housing supply grew faster than the population. However, since 1990, the housing units produced by the private sector have become increasingly unaffordable. This reflects several factors, including limited access to affordable land for development, lack of an effective system of land registration, and the effects of the land tax system. Public housing production is dominated by a government-owned entity; a national program has provided slum rehabilitation in rural areas.

Housing finance is provided under four main schemes: (1) subsidized credit at rates in the 3.5 to 5.0 percent range for households earning less than three times the minimum wage (this program provides up to 90 percent of the housing price to this income group for a term of

[26]Based on International Housing Finance Sourcebook (1995), supplemented by more up-to-date publications on the country.

25 years); (2) credit linked to tax-free savings accounts allowing the saver to borrow up to three times the level of accumulated savings at the interest rate of 6.75 percent; (3) traditional mortgage lending at rates of 6.9 to 8.9 percent; and (4) lending by social security funds.

A state-owned bank administers all subsidized lending and accounts for 80 percent of the mortgage market loans. This entity offers a system of contract savings; the maximum contract is 40 percent of household income, usually completed in 4 to 5 years; loan amount is twice the savings amount plus accrued interest; loan terms are 13 or 20 years. Long-term commercial funding is lacking. As of 1994, the contract saving schemes were also required to be supplemented by loans.

Housing investment remained robust since 1990, averaging 4 percent of GDP, resulting in a 3.5 percent increase in the number of housing units during 1984–99. Generous tax incentives for housing developments have had an important impact on robust growth in the housing sector.

Tariffs on construction materials (cement, steel, tiles and bricks, glass) are generally high (in the range of 30–43 percent ad valorem). Although the cement sector has been recently privatized, the remaining industries remain in the public sector.

C. An Overview of Middle-Income Comparators: Turkey and Mexico

These two comparator countries are chosen on the basis of their comparable income levels to the selected MENA countries. Like most MENA countries, Turkey has a relatively undeveloped housing mortgage market; in contrast, Mexico has a rather developed one.[27]

Turkey

A decade ago, having seen rapid urbanization for there decades, Turkey's urban housing stock amounted to about 7 million units, of which one-and-a-half million were squatter dwellings.[28] Total housing stock was estimated at 11.5 million units. A large public institution and a state-owned bank were the main providers of housing and mortgage financing. Social security organizations and municipal governments became active through the 1970s in providing housing. About 92 percent of the housing industry was in the private sector and mortgage loans (mostly through the state-owned bank) amounted to 9 percent of total bank credit outstanding by 1990, of which 95 percent was used by institutional borrowers. Such credit provided financing only for about 25 percent of housing value on average. Low- and middle-income households had no or limited access to mortgage financing.

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[27]This section is also based in the information available from the *International Housing Finance Sourcebook, 2000* (forthcoming).

[28]See Keleş (1990); more than half of the urban dwellers in the three largest cities lived in squatter dwellings.

The housing shortage in 1998 was estimated at 500,000 units, which may have increased by 100,000 following the 1999 earthquake. The number of existing houses and dwellings was 14.5 million in 1998, the size of the average unit being 131 square meters. Housing starts averaged 444,000 units per year during 1996–98, which is in excess of the estimated demand of about 200,000 units during 1995–2005. Home ownership is widespread, with 70 percent of the population owning their own homes. Almost all homes continue to be self-financed. Outstanding mortgage loans represent less than 1 percent of GDP. Historically, large barriers have existed in obtaining individual mortgage loans, including large down payment requirements, high interest rates, and banks' unwillingness to offer mortgage products.

Recently, banks have started focusing on mortgage lending; in 1999, such lending was estimated at US$500 million. Fixed- and variable-rate products are offered with a loan maturity between 5 to 20 years; the minimum down payment requirement is 25 percent of the long term value; interest rates range from 2.5 to 3.5 percent per month for Turkish lira denominated loans. There is no secondary mortgage market.

Mexico

Mexico's urban population in 1999 was 98 million, the equivalent of 21 million households. The rate of new household formation is in the range of 600,000 to 700,000 per year. It is estimated that 84 percent of homes are owner occupied but less than 10 percent of the housing stock is mortgaged; some 3 million units are substandard. New informal housing built each year amounts to 50 to 65 percent of total housing built. Growth in the housing stock is in the range of 500,000 to 750,000 units per year. Approximately 85 percent of the formal housing starts in 1995 were in the public sector.

Mortgage debt in percentage of GDP has remained more or less constant, averaging about 9 percent of GDP during 1993–97. The 1994 economic crisis resulted in a near disappearance of private mortgage lending and a rise in delinquency. In an attempt to rescue the mortgage market, the government bought most of the delinquent loans, amounting to US$80 billion by late 1999, or some 20 percent of GDP.

Funding for mortgage lending comes from: (a) a 5 percent payroll deduction that goes into two separate funds for private and public sector workers (the private sector workers' fund is the largest originator of mortgage lending); (b) Federal Government contributions and World Bank financing are directed to the fund for public sector workers, which in turn lends to commercial banks and to special-purpose closed nonbank public institutions for mortgage lending (commercial banks also provide mortgage lending financed by deposits; commercial bank mortgage lending declined dramatically following the 1994 crisis); (c) self-financed closed savings and loans institutions (such institutions are estimated to have about 100,000 members and generate 500 to 1,000 new loans per month).

The primary mortgage product is a dual index mortgage; this product is indexed to both the interest rate on certificates of deposits or treasury bills that determines the mortgage interest rate, and, to the minimum wage that determines the repayment rate. The maximum term on mortgage loans is 30 years. Variants of this product are used by the main mortgage lending institutions.

Low-income housing loans are provided by private mortgage lending institutions. These institutions do not receive deposits from the public and currently lend exclusively to low-income households. Relative to other mortgage lending institutions, these institutions perform well in enforcing repayment, as evidenced by relatively low default rates. A public institution is the country's main mortgage lender to the poor. It provides subsidized finance for houses valued at less than US$10,000; it provides an upfront 20 percent subsidy and requires the borrower to make an additional 10 percent down payment on the value of the house, thus reducing the loan-to-payment ratio to 70 percent of the value of the dwelling.

As recommended by Buckley (1996), in order to reach lower income households and improve loan recovery, Mexico has designed a mortgage indexation scheme and separated the repayment rate from the lending rate. The amortization rate is indexed against inflation and follows the treasury bill rate; the monthly payment rate is indexed to wages; the difference is added to the credit balance and amortization period is extended accordingly.

In March 1999, a housing finance trust, managed by the Mexican Central Bank (Banco de México), received a US$505 million loan from the World Bank to promote the development of mortgage securitization (Torá and Buendía (2000)). To date, the secondary mortgage market remains rudimentary, with only a small mortgage-backed bond issued by a private company in 2000.

D. Summary and Discussion

The foregoing review of the selected MENA countries broadly reveals the following facts:

(a) housing shortages have persisted in all of them (Tunisia excluded) and have not met the rising housing demand;

(b) housing has remained expensive, making ownership unaffordable for low and middle-income households; housing quality has remained generally poor, with over-crowding and squatter housing being the norm in meeting the housing supply shortages;

(c) housing and mortgage finance sectors have been dominated by large public sector institutions and state-owned banks, frequently with nontransparent practices and insolvent financial positions; with the exception of Jordan, where a secondary market is emerging, there are no secondary mortgage markets.

(d) mortgage finance has been inaccessible to a large portion of the population, even to middle and upper middle income households; large down payment and short loan repayment requirements have been the norm in available mortgage financing; no significant financial innovation has been introduced to improve mortgage availability; commercial banks have been only minimally involved in mortgage finance;

(e) housing subsidies have not reached the targeted groups and are in need of rationalization through market-based schemes;

(f) land tenure, property titles, eviction procedures, and loan recovery is generally weak and are in need of improvement through proper legislation;

(g) domestic construction materials industries have been dominated by the public sector companies and high duties apply to imports of construction materials; this increases the cost of housing and creates supply problems;

(h) all countries have great growth potential in the housing sector through encouraging development of affordable mortgage finance facilities.

Compared to the two middle-income comparators, the selected MENA countries are fairly similar to Turkey in the level of development of mortgage finance markets. Mexico, however, appears to be a middle-income comparator country that is more advanced than the selected MENA countries in terms of the level of development of mortgage markets, as well as the degree of access to those markets by low- and middle-income households.[29]

The foregoing summary of the state of housing and mortgage markets in the selected MENA countries present the reforms and measures necessary to tap the potential financial market development and growth enhancement that can be achieved by focusing on this sector. In most countries, governments have already undertaken or have begun to take initiatives toward that end.

The magnitude of this potential is difficult to gauge and appears to be somewhat limited in the medium term.[30] However, a simple simulation exercise may shed some light on the potential gains in growth and employment potential of developing mortgage markets; this is done in the next section, using some benchmarks from the United States.

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[29]Siembada and Moreno (1999) have emphasized, however, that further improvements in the housing market are needed in Mexico. These include further removing lending restrictions, increasing lending volume, improving transparency in housing construction contracts and lending by public agencies, and improvements in cost recovery.

[30]For example, for Egypt, Diamond (1999) estimated that the potential market is about 80,000 to 100,000 units per year. At an average value of LE 150,000 per unit, this amounts to LE 1.5 billion per year and LE 15 billion over the next 10 years.

IV. A Simulation Model

Policies that aim at increasing the availability of affordable mortgage loans ultimately will reduce mortgage rates. The simulations in this paper show the effect of sharp changes in mortgage and other lending rates on housing construction and GDP growth.

This paper uses the Washington University Macro Model (WUMM) maintained by Macroeconomic Advisors, LLC. WUMM is a quarterly econometric system of 611 variables, 442 equations, and 169 exogenous variables. The model explains entries from all major portions of the National Income and Product Accounts and provides considerable additional detail on labor and financial markets. WUMM models three aspects of residential investment: single-family construction, multifamily construction, and "other" residential construction (such as additions and alterations on existing structures). The age and gender mix of the population, wealth, real income, and the after-tax rental price of homes determine housing starts. The after-tax rental price of housing is a function of mortgage rates, the relative price of homes, economic depreciation, and relevant aspects of the tax code.

Mortgage rates in the United States are far lower than those in the MENA countries. Consequently, the simulation exercise is, in some sense, run "backwards"—meaning that the simulation shocks mortgage rates and other lending rates upward substantially. The model then compares the 10-year change in housing construction and real GDP that results relative to the "base" case. This provides a rough guide to what one may expect to occur in the MENA countries when financial market reform causes a substantial decline in mortgage rates and expansion in availability.[31]

The simulations compare 200, 400, and 600 basis point changes in fixed-rate home mortgage rates, and 200, 400, and 600 basis point changes in long-term corporate bond yields.[32] The latter are included in the simulation exercise for two reasons. First, financial market reforms that increase the availability and lower the cost of residential mortgages may also include reforms that lower business lending rates. Second, since many low- and middle-income families in developing countries are small business proprietors and face constraints in obtaining small business loans, availability of home mortgage loans may also serve to fill a financing gap for small businesses because the capital is fungible.

[31]For families who cannot currently obtain a mortgage loan in the MENA countries, the effective mortgage rate is infinite. Making home mortgage loans available to a broader cross section of society results in a substantial decline in the cost of credit for such families.

[32]The home mortgage rate is for 30-year term and conventional (that is, not insured by the government) loans. The corporate bond yield is for fixed-rate debt with terms of 20 years or more.

The results of the simulation are shown in Table 4. The top panel shows the 10-year cumulative percentage change in the number of dwelling units constructed, while the bottom panel shows the effect on the annualized growth rate of real GDP over 10 years. From the "base" case, reforms that result in mortgage rates declining by 600 basis points result in approximately 10 percent more housing construction over the first decade.[33]

[33]WUMM's "base" projection is for 15.2 million housing starts over the next decade and annualized real GDP growth of 2.9 percent in the United States. As noted in the text, the simulations are run with 200, 400, and 600 basis point increases in mortgage rates and corporate bond yields in the United States because decreases of this magnitude would place interest rates well below U.S. Treasury yields and, in fact, close to zero for a 600-basis point decline in yields. The appropriate "thought experiment," then, is to shock interest rates, say, 600 basis points higher in the United States to achieve a stylized "base" case for a developing country, and then consider the WUMM "base" projection as what would occur in a developing country if interest rates were 600 basis points lower.

Table 4. Effects of Mortgage Market Reform on
Housing Construction and Economic Growth: Simulation Results

Panel A: Percentage increase in ten-year cumulative housing starts

Change in corporate bond yield	Change in home mortgage rate			
	Base	-200 basis points	-400 basis points	-600 basis points
Base	...	2.9	5.9	9.6
-200 basis points	0.7	3.7	6.6	10.3
-400 basis points	0.5	5.1	8.1	11.0
-600 basis points	2.2	4.4	8.1	11.8

Panel B: Change in annualized real GDP growth over ten years

Change in corporate bond yield	Change in home mortgage rate			
	Base	-200 basis points	-400 basis points	-600 basis points
Base	...	0.0	0.0	-0.1
-200 basis points	0.2	0.1	0.1	0.0
-400 basis points	0.3	0.2	0.2	0.1
-600 basis points	0.2	0.1	0.1	0.1

Source: Authors' calculations using the Washington University Macro Model of the United States.

If the financial market reforms also effectively reduce business lending rates, then additional construction occurs through the faster growth of the economy. In the case where both home mortgage and business interest rates decline by 600 basis points, cumulative housing construction is 12 percent greater over the first decade.[34]

The bottom panel shows that reforms that reduce mortgage rates by 600 basis points, with no concomitant change in business interest rates, may reduce economic growth by 0.1 percentage points per year, based on U.S. simulation parameters. This occurs because greater residential investment diverts resources from other forms of investment, thereby resulting in a small decline in the overall growth rate. If corporate debt yields also decline, then real GDP growth may increase by 0.1 percentage points per year. In the event of home mortgage reforms, it is likely that there will be declines in interest rates for small business loans since the proceeds of the mortgage loan can be at least partly applied to finance sole proprietorships.

While a simulation based on the U.S. experience is instructive, it is likely to minimize the effect of mortgage market reform in the MENA countries. This is because the U.S. residential mortgage market is already integrated into the broader capital markets, and a fact which is included in WUMM's parameters, but is not the case in the MENA countries. Thus, it is quite likely that the percentage increase in housing starts and positive effect on economic growth will be more significant in these countries than is indicated by the U.S. simulation.

In contrast, Japelli and Pagano (1994) argue that financial market reforms that increase consumer access to credit ultimately lower the savings rate and economic growth, but their model assumes no corresponding benefits to small-firm finance and ignores the investment aspect of home ownership.[35] As Levine (1997, p. 692) argues, capital market reforms that enable savers to liquefy assets quickly and easily can facilitate long-term capital investments; because home equity often represents the bulk of net wealth for households, mortgage market reforms that enable households to liquefy some of the wealth that is stored in their home is

[34]WUMM also includes the prime rate for short-term business loans. The simulations were also run for 200, 400, and 600 basis point changes in the prime rate, but the effect of changes in the prime rate on the 10-year cumulative change in housing starts and real GDP were negligible, and are ignored in the discussion.

[35]Japelli and Pagano (p. 102) state that imperfections in the mortgage and consumer credit market "...have no necessary correlation between home mortgage reforms and credit access for small firms, then mortgage market development may enhance economic growth in their model. Further, mortgage credit can be used for other purposes, such as to finance schooling or other forms of human capital investment for household members, which also increase economic growth.

likely to stimulate other capital investments.[36] Taken as a whole, these empirical findings suggest that if home mortgage reforms have "spillover" effects that increase small business credit and other capital investments, attributable to the fungibility of money, then economic growth will increase.

V. Conclusions

The MENA countries share a number of attributes with other developing nations. MENA countries, on the whole, have housing shortages, especially for quality housing that is affordable to lower-income households. In addition, the home mortgage market is not well developed, the mortgage lending that occurs primarily serves higher-income households. Thus, development of affordable mortgage loans that serve a broad cross section of the population will no doubt serve the policy objective of improving living standards in these countries.

Data for MENA nations are not available to analyze the effect that greater mortgage availability would have to alleviate housing shortages or effect economic growth. Simulations based on U.S. parameters provide some guide to the resulting effects. On the whole, mortgage market reforms lead to a significant increase in housing construction, on the order of 10 percent additional units built with a 600 basis point decline in mortgage rates. Economic growth is little changed over a 10-year period; greater investment in housing acts to "crowd out" other investment, so that the net effect on economic growth is small. If home mortgage reforms, in effect, also increase small business credit, then there is likely to be an increase in economic growth. Nonetheless, by alleviating some or all of the housing shortages, and perhaps by stimulating growth through funneling of more capital into small businesses, living standards will be improved.

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[36]As shown in Nothaft (2000, p. 6), home equity represents the bulk of net wealth for most families in the United States.

Table 1. Selected MENA Countries and Comparators: Demographic Characteristics

	Population		Population growth rate		Average increment to population		Labor force growth rate	
	Actual	Projected						
	1995	2025	1990–95	2000–05	1990–95	2000–05	1981–90	1991–2000
	(In millions)		(In percent)		(In thousands)		(In percent)	
Algeria	27.9	45.5	2.3	2.0	601	650	4.1	3.5
Egypt	62.9	97.3	2.7	1.7	1,324	1,256	2.6	2.7
Jordan	5.4	12.0	4.9	3.0	236	211	5.1	4.8
Morocco	27.0	40.7	2.1	1.6	539	478	3.1	3.1
Tunisia	8.9	13.3	1.9	1.5	163	154	3.2	2.7
Turkey	61.9	90.9	2.0	1.5	1,169	1,070	2.6	2.0
Mexico	93.7	136.6	2.1	1.5	1,833	1,597	3.1	2.6
United States	263.3	331.2	1.0	0.8	2,665	2,227	1.1	1.0

Source: World Resource Library.

Table 2. Selected MENA Countries and Comparators: Age Composition of Population

	Age composition of population (1995)			Average annual growth rates Projected, 1998–2015		
	< 15	15–65	> 65	< 15	15–65	> 65
			(In percent)			
Algeria	38.7	57.7	3.6	-0.2	2.5	3.0
Egypt	38.0	57.8	4.2	-0.2	2.2	2.7
Jordan	43.3	54.0	2.7	1.0	2.9	4.4
Morocco	36.1	59.8	4.1	0.0	2.0	2.6
Tunisia	34.9	60.7	4.4	-0.5	1.9	2.1
Turkey	33.9	61.1	5.0	0.1	1.5	2.6
Mexico	35.9	59.9	4.2	-0.2	1.9	3.1
United States	22.0	65.3	12.6	-0.1	0.7	1.9

Sources: World Resource Library and World Bank, Indicators of Economic Development, 2000.

Table 3. Selected MENA Countries and Comparators: Urban Indicators

	Urban population		Share of urban population		Urban population growth
	Actual	Projected	Actual	Projected	
	1995	2025	1995	2025	1990–95
	(In millions)		(In percent)		(In percent)
Algeria	15.6	33.7	56.0	74.0	3.8
Egypt	28.2	60.5	45.0	62.0	2.6
Jordan	3.9	10.1	71.0	84.0	5.9
Morocco	13.1	26.9	48.0	66.0	3.1
Tunisia	5.1	9.8	57.0	74.0	2.8
Turkey	42.6	79.1	69.0	87.0	4.4
Mexico	70.5	117.2	75.0	86.0	2.8
United States	200.7	281.2	76.0	85.0	1.3

Source: World Resource Library.

Table 4. Selected MENA Countries and Comparators:
Urban Poverty and Income Distribution

	Population below national poverty line			Distribution of income or consumption between income groups		
	Urban	National	Survey year	Low 20%	High 20%	Survey year
	(In percent)			(In percent)		
Algeria	14.7	22.6	1995	7	42.6	1995
Egypt	22.5	22.9	1994	9.8	39	1995
Jordan	...	15.0	1991	7.6	44.4	1997
Morocco	12.0	19.0	1990–91	6.5	46.6	1998–99
Tunisia	8.9	14.1	1990	5.9	46.3	1990
Turkey	...	...	...	5.8	47.7	1994
Mexico	...	10.1	1988	7.2	58.2	1995
United States	...	...	...	5.2	46.4	1997

Source: World Bank, Indicators of Economic Development, 2000.

The Well-Functioning Housing Sector

In order to identify the shortcomings of the housing markets and finance in the selected MENA countries, it will be useful to first to have an idea about the characteristics of a well-functioning housing market. A World Bank study (1993a) identifies those characteristics, which are summarized in this section.

Housing consumers

- Safe, adequate, and separate housing is available for every household; tenure and transfer of property are safe and protected by due process of law.

- Mortgage is an affordable portion of household income; housing prices are stable; financing is available at different price ranges to enable smoothing of housing expenditure over time and to permit households to save and invest; financing is available at competitive rates; adequate information is available to ensure efficient choice.

- Market option between owning *vs*. renting are available to households.

- Households are able to participate in policy decisions that affect housing and neighborhoods.

Housing producers

- Housing contracts are enforceable; there are no barriers to entry and exit in the sector; government housing regulation, policies and projects are well-defined, predictable, efficient and are implemented in a timely manner.

- Adequate supply of residential land is available at reasonable prices; such land has adequate infrastructure or the government is willing and able to undertake developing land by making basic investments in sewerage, roads, electricity, water, communications.

- Building materials, equipment, skilled labor are available at reasonable prices; trade regime does not discriminate against the housing sector imports.

- Adequate financing is available; there is sufficient information about the properties of housing demand to enable stable projections about the level and nature of housing demand; rates of return to housing investment are competitive and sufficient to maintain incentives for housing investment.

Housing finance institutions

- Property rights, tenure and foreclosure are well-defined and protected under due process of law to protect lenders.
- These institutions operate in a competitive financial market *vis*. other financial institutions and subsidized finance; the role of directed credit is minimized.

- Deposits at an appropriate term structure for long-term mortgage lending are available to enable lending at positive real interest rates with a sufficient profit margin.

- Mortgage lending instruments that are in demand by households and that provide adequate protection for housing finance institutions are permitted; secondary markets to spread lending risk and appropriate institutions exist to protect housing finance institutions against undue mortgage risk.

Local governments

- Housing and related infrastructure are of financing quality to maintain public health, safety standards and environmental quality; infrastructure can be extended to new developments in a timely fashion, and sufficient land for new development can be made available as housing demand grows; new developments are within reasonable proximity of existing main networks.

- Communities can participate effectively in housing programs and projects, and in policy decisions; housing provides a major source of local government revenues for developing and maintaining infrastructure and amenities.

Central governments

- Housing sector policies are incorporated into the national and social and economic priorities and plans; housing sector and financial markets are monitored.

- Housing sector contributes to:

  - alleviating poverty; targeted subsidies are available to assist households that cannot afford minimum housing;

  - generating household savings and mobilizing household resources;

  - generating employment and income growth;

  - enabling social and spatial mobility;

  - increasing productivity, investment growth and capital accumulation;

  - developing the financial system;

  - protecting the environment.

- Those contributions are supported by prudent monetary (low inflation) and fiscal (low deficit) policies.

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