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9. ABSTRACT

Since 1971, the Office of Housing of AID has been conducting preinvestment surveys in countries where housing investment guaranty programs are anticipated in order to provide the background and framework for its intervention. These surveys are, in fact, increasingly sophisticated analyses of the shelter sector of each country. Each report is intended to provide the Office of Housing with the information necessary to enable it to answer three primary questions about a specific country:

- . What is the country's capacity to undertake a large-scale housing program?
- . What is the effective demand for housing at a given price level?
- . What is the country's capacity to repay a foreign loan?

To paraphrase the introduction to the scope of work for a recent survey, its objectives are to determine the need for housing at all socio-economic levels of society, to determine the ability of each socio-economic group to pay for housing; to assess the capabilities of the Government to plan and manage large scale housing programs and projects; to analyze the impact of large scale foreign borrowing on the country's economy and its ability to repay; and to assess the ability of the country to absorb large sums of money into the shelter sector industries.

These objectives have been realized with varying degrees of success. Some of the more recent surveys, in particular, provide broad panoramas of the country housing sectors. Some of the earlier ones are more limited in scope and cover only a part of the sector.

These reports provide valuable orientation for anyone becoming involved in housing sector in one of these countries. They should also be useful for comparative studies of housing programs and policies on a regional or world-wide basis.

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**TUNISIA:
SHELTER SECTOR
ANALYSIS
SEPTEMBER, 1973**

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SHELTER SECTOR ANALYSIS:

TUNISIA

September 14 ~ September 29

1973

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TUNISIA

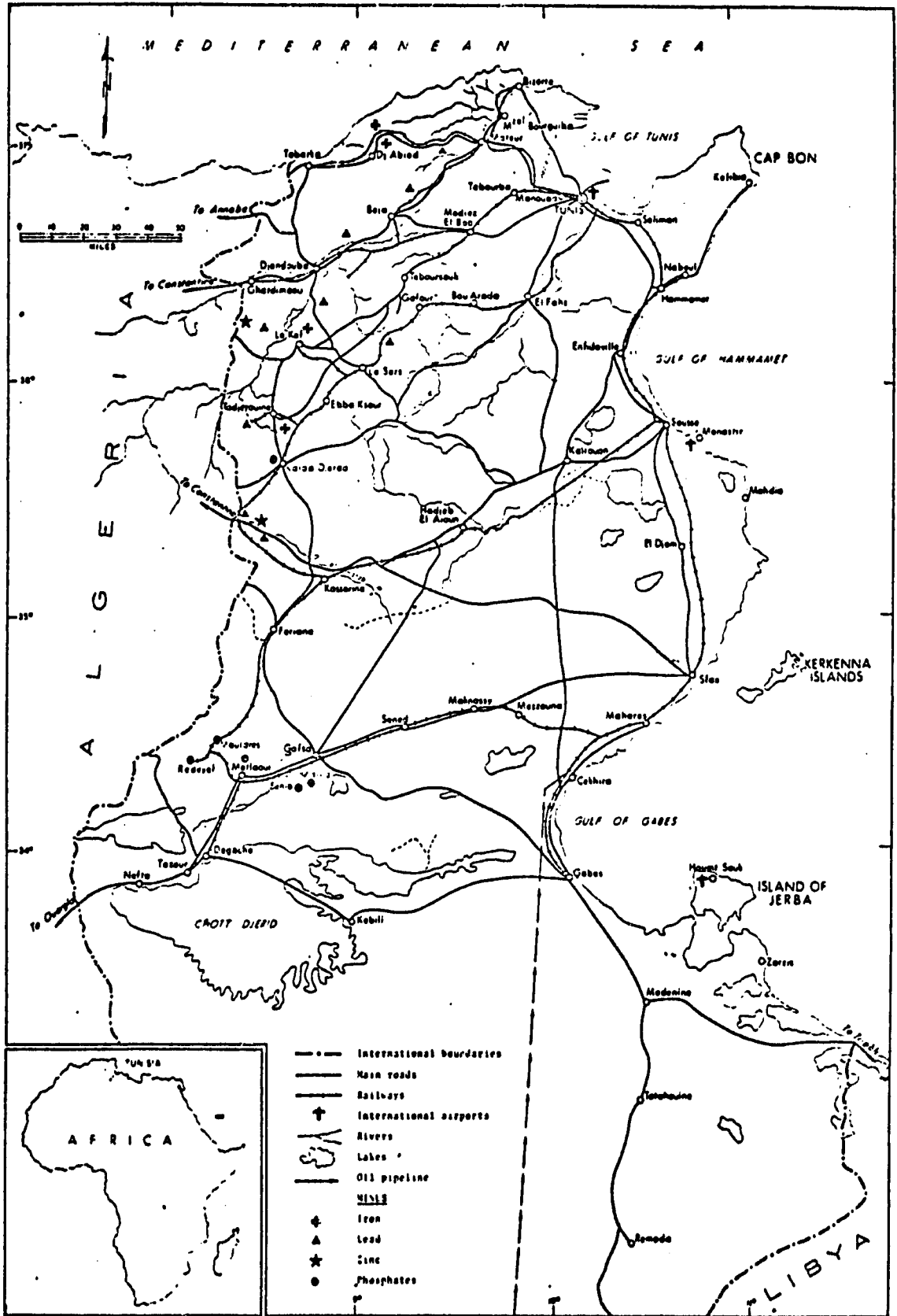


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BACKGROUND

Tunisia, a country of approximately 5.5 million people, is situated on the northern coast of Africa, bounded on the west by Algeria and on the east by Libya. Tunisia occupies an area of some 63,000 square miles, approximately the size of the state of Georgia. The coastal region of the country enjoys a Mediterranean climate, while the southern region, bordering the Sahara Desert, is hot and arid. The northern region, however, is wooded and fertile and accounts for most of the country's agricultural production. The central region, comprising the coastal plains, is well-suited to the support of livestock and olive groves.

The people of Tunisia are primarily of Arab and Berber descent. Arabic is the official language of Tunisia, but French is a widely-spoken second language. Islam is, by far, the dominant religion.

Tunisia's written history dates from the 12th Century B.C., when Phoenician traders established permanent settlements. In time, cities emerged, the most famous of which were Utica and Carthage, founded in the 7th and 8th centuries B.C., respectively. By approximately the 3rd century B.C. Carthage, whose site lies on the northern outskirts of the capital city of Tunis, was a power to rival Rome in the Mediterranean. Carthage, however, was ultimately unsuccessful against Rome in the Punic Wars of 264-146 B.C. and the final episode of these struggles brought the destruction of Carthage and the occupation by Rome of a substantial portion of the area now known as Tunisia.

During the period of their occupation, the Romans constructed an ingenious irrigation system, expanded the network of communications, and stimulated agricultural development, most notably the cultivation of the olive tree.

The Islamic tide reached Tunisia in the 7th and 8th centuries A.D. as the Roman Empire fell into decline. From this time until the French protectorate was established in 1881, Tunisia was ruled by Arabs and Berbers and finally was allied with the Ottoman Empire of the Turks. During the period of Arab and Berber dominance, a brilliant civilization flourished in Tunisia.

The French occupation of Tunisia added a European influence to Tunisian culture and provided modern infrastructure, such as railways, ports, hospitals, and schools. But the dominance of social, political, and economic life by French settlers quickly inspired nationalistic uprisings which ultimately led to Tunisia's independence from France in 1956.

Since Independence, Tunisia has been virtually free of internal strife and dissidence. Under President Habib Bourguiba, Tunisia's first and current president, Tunisia has maintained an essentially non-aligned policy in foreign affairs and its domestic policies appear to follow pragmatic, rather than ideological, lines in the pursuit of economic and social development.

Tunisia's economy, although increasingly diversified, currently remains agricultural in character, the principal products being wheat, olives, citrus fruits, dates, grapes and truck crops.

Processing of agricultural products is the main industrial activity. The extractive industries in Tunisia are based on mineral resources of petroleum, iron ore, phosphates, lead, and zinc. Petroleum, olive oil, and phosphates are Tunisia's principal commodity exports, while tourism constitutes a highly significant service export.

The U. S. enjoys a favorable balance of trade with Tunisia, accounting for approximately 20% of Tunisian imports, but only about 1% of exports in 1972. The United States, however, provided approximately 25% of the economic assistance received by Tunisia in 1972.

As of June, 1973, approximately \$15 million of HG resources, in two loans, were under contract in Tunisia. The first of these loans, made in 1966, was for approximately \$5 million and is now fully disbursed. This loan financed the construction of 565 low-cost housing units, known as the Carnoy Project, all of which are now completed and occupied. The second loan was contracted in 1972 for \$10 million to finance 5,100 low-cost housing units, known as the Ras Tabia Project. Only \$3 million of this loan has been disbursed, but the first phase of the project is nearing completion and further disbursement of funds is anticipated in the very near future.

SUMMARY AND CONCLUSIONS

The quality of the housing stock in Tunisia, as in most developing nations, leaves much to be desired. In 1966, 4.3% of the housing stock was composed of "gourbis," tents, ruins, and other impermanent shelters. Although the housing stock increased by 16.4% between 1966 and 1971, there is no reason to believe that the proportion of substandard dwellings declined appreciably. Moreover, this construction effort was insufficient to eliminate the housing deficit, which was estimated at 60,000 units at the end of 1972. That is, elimination of the deficit would have required a housing stock approximately 6% larger than it was, in fact, in 1972.

The natural increase of the population, estimated at 2.8% per year, and a family structure averaging 5.07 persons lead to an estimated annual housing construction requirement of about 20,000 units per year. The elimination of "gourbis" and other substandard dwellings will require an additional 17,000 units per year over a twenty-year period. Elimination of the housing deficit requires an additional 6,000 units per year over a ten-year period and reducing the average density of room occupancy from 3.15 persons to 2.0 persons requires 16,000 more units per year over a twenty-year period.

Thus, housing requirements over the first decade of a twenty-year period can be estimated at 59,000 units per year and at 53,000 units per year for the second decade.

Total housing production over the eleven-year period from 1962 to 1972, however, amounted to only 105,312 units. Moreover, housing production for 1971 and 1972 averaged only 12,420 units, exclusive of the uncontrolled increase in "gourbis" and other substandard dwellings.

Thus, housing production falls far short of the estimated requirements.

The shortfall in production relative to requirements is not due to a lack of demand. The Société Nationale Immobilière Tunisienne (SNIT), the National Housing Agency, has received over 100,000 applications for housing, far more than it has the capacity to produce. Moreover, applications for specific projects are invariably closed long before construction begins.

The shortfall in supply relative to both housing demand and housing requirements derives primarily from the inability of the construction industry to produce enough housing units.

The 1973-76 development plan projects construction of 17,750 housing units per year, on the average, for a total of 71,000 units. The number of units constructed each year is programmed to rise from 14,091 in 1973 to 19,759 in 1976, but the achievement of even this volume of production will require some significant changes within the construction industry.

The shortage of skilled labor is the principal difficulty encountered in increasing the productive capacity of the construction industry. Although the skilled labor component of the residential construction work force is estimated at only about 15%, training can require as much as four years. This factor, combined with recent increases in construction

activity and skilled worker migration to Europe and other North African countries, has resulted in a shortage of skilled workers even at current levels of production.

A less significant, though by no means unimportant, problem is the shortage of supplies of domestically-produced construction materials. Shortages of cement, lime, steel, and lumber have, in the recent past, upset construction schedules and caused substantial delays in the completion of most major projects.

The Tunisians are seeking solutions to these problems by intensifying their training efforts, by increasing the productive capacity of the cement industry, and by improving planning for imports of materials in short supply.

It is also necessary, however, to modify the traditional construction methods employed in Tunisia. Productivity must be increased by about 5% just to achieve the targets of the 1973-76 development plan. But traditional style and design concepts must also give way to more functional and economic designs. Of greatest importance is the adoption of production methods which lower the skilled-labor component.

Although the productive capacity of the construction industry probably represents the principal constraint on the expansion of shelter sector activity, the ability of the financial sector and of government financial programs to transform potential demand into effective demand must also be increased.

Long-term housing finance outside of the GOT-sponsored programs is virtually nonexistent. It is estimated that at least 40% of the housing investment which is not made under the aegis of a government program is

autofinanced. The actual proportion of autofinancing probably ranges upward from 50% - 60%, with the balance financed by short-term commercial bank loans.

During the 1962-72 period, the GOT financed, directly or indirectly, 43.7% of the housing units constructed in Tunisia. Financing of these units took the form of direct loans, construction subsidies, and loan guarantees. For the 1973-76 plan period, this proportion is expected to rise to 62.8% of the housing units programmed for construction.

The major portion of the government's program will be carried out through the Société Nationale Immobilière Tunisienne (SNIT), which is the national housing agency. The financial resource base for this agency derives from current GOT advances, from the amortization of past GOT advances, which SNIT is permitted to retain, and from private borrowing, the most significant of which is the \$10 million HG loan executed in 1972.

Financial programming for the 1973-76 development plan allows for an increase in the loan guarantee program from 3.6 million dinars during the 1969-72 period to 6.0 million dinars for 1973-76. The loan guarantee program, however, which is implemented through the GOT-controlled Société Tunisienne de Banque (STB), the nation's largest commercial bank, is small in relation to total financial requirements.

Of a total public sector housing investment of 62.5 million dinars programmed for the 1973-76 period, only 45.0 million dinars of financial resources have been identified and this figure includes a 4.7 million dinar HG loan (approximately \$11.75 million)*, which is not yet under contract,

*Converted to U. S. dollars at the September, 1973 rate of exchange of US\$ 1 = TD .40 or TD 1 = US\$ 2.50.

and a 1.5 million dinar Swedish loan which is still in the process of negotiation. The additional financing to be identified and obtained, over and above these two foreign loans, amounts to 17.5 million dinars (approximately \$43.75 million), or about 28% of the required financial resources.

Currently, the GOT is organizing a new means of mobilizing funds for housing investment. This new initiative, the Caisse Nationale d'Epargne Logement, or National Savings Bank for Housing, will have no direct effect on the achievement of the 1973-76 plan targets, inasmuch as it will not become operational until the end of 1973 or early 1974 and will involve a four-year pre-saving phase prior to the granting of the first loans.

The Caisse Nationale d'Epargne Logement (CNEL) is nominally a controlled-entry, contract saving system, which will grant ten-year housing loans at 5% to savers who complete a four-year savings contract equal to at least one-third of the purchase price of the house. The accumulated deposits of a saver, which will bear interest at 4% per annum plus a 2% bonus from the GOT upon completion of the saving contract, are to be used as the downpayment.

Initially at least, loan funds for the CNEL are to be derived from borrowing or transfer of funds from the Postal Savings System. Estimates of the growth of deposits in the Postal System over the 1973-84 period, based on the average rate of growth of deposits in the past, indicate that a substantial reservoir of funds could be made available to the CNEL from this source.

Inasmuch as the details of the operations of the CNEL have not yet been worked out, there is no firm basis for an evaluation of the adequacy of the system. In general, however, it should be noted that if the system is to generate sufficient resources for the financing of an expanding construction program, more flexibility than is presently evident will have to be built into the system; it is not felt that amortization of prior loans made under the program will alone provide a resource base which will grow rapidly enough to satisfy housing demand and housing requirements.

Indeed, although the growth of the financial sector in general has kept pace with economic growth, it has not shown any marked tendency to develop in ways which would ensure improvement in the availability of home financing.

That financial sector growth has kept pace with economic growth is, however, no small achievement. The Tunisian economy performed remarkably well over the 1968-72 period on all fronts, registering an average rate of growth of real gross domestic product of 9.7% per year and an average rate of growth of real per capita gross domestic product of 7.5% per year. Moreover, the average rate of inflation during this period was a modest 3.4%. Export earnings doubled over the period while imports increased by only 86%, which permitted a reduction in the deficit on current account in the balance of payments from 50.2 million dinars in 1969 to 23.0 million dinars in 1972. Most of the targets of the 1969-72 development plan were achieved.

The 1973-76 development plan is, perhaps, more ambitious than its predecessor. Target levels of growth and structural change within the economy appear to have been pressed to their maximum feasible limits in most areas. Real gross domestic product is programmed to grow at an average rate of 7.5% per year; the annual average rate of growth of real per capita gross domestic product is targeted at 5.0%. Furthermore, the target rate of inflation is essentially zero.

A significant increase in the rate of gross fixed capital formation, from 19.2% of gross domestic product in 1972 to an annual average of 24.5% over 1973-76, is projected. Manufacturing, Construction (including housing), and Tourism are targeted as the leading growth sectors.

Export and import projections contained in the plan are somewhat pessimistic, with the consequence that the plan anticipates large current account deficits -- averaging 72.5 million dinars per year -- in the balance of payments. The total net foreign financial inflow requirements envisioned by the plan therefore amount to 379.5 million dinars, or 949 million dollars at the September, 1973, exchange rate.

The structure of the external debt, in spite of the heavy foreign borrowing anticipated by the plan, remains smoothly scheduled and service on the private and public external debt relative to export earnings is expected to decline from 17.8% in 1972 to 14.7% in 1976.

Moreover, assuming that the level of international monetary reserves would never be allowed to fall below 25% of annual imports and that the relevant targets of the 1973-76 plan will be achieved, it can be estimated that Tunisia will enjoy a significant surplus of foreign debt service

capacity over the 1973-76 period. Thus, Tunisia could lower its foreign financial inflow requirements without jeopardizing its international reserve position. Alternatively, it could borrow even more from external sources than is already programmed.

In this context, the 4.7 million (\$11.75 million) HG loan, which is included in the 1973-76 development plan but which is not under contract, represents only nine tenths of one percent of the total programmed foreign financial inflow. Thus, even a \$30 million HG loan, much less the programmed \$11.75 million loan, disbursed over 1973-76 would not materially affect either the Tunisian balance of payments, its international monetary reserve position, or its debt service position.

Thus, the principal problems which the study has identified relate primarily to the ability of the construction industry to produce a sufficient number of housing units to satisfy housing demand and housing requirements and, secondarily, to the capacity of GOT programs and the private financial sector to provide home financing. These problems are, however, far from insurmountable. Indeed, the GOT recognizes these problems and has taken affirmative action toward their solution. Moreover, the capabilities of the existing institutions indicate that the base upon which the new programs are to be built is sufficiently strong to justify further HG program assistance.

In addition, the survey team feels that such HG assistance, if undertaken in the near future, should be channeled through the national housing agency, the Société Nationale Immobilière Tunisienne (SNIT), which is the sponsor of the current HG project at Ras Tabia. Inasmuch as SNIT

will continue to have the responsibility for the financing of housing in the critical "Economic" segment of the market until the new housing finance program, the Caisse Nationale d'Epargne Logement (CNEL), is operational, this procedure should ensure the continuity of HG program efforts in Tunisia.

Assuming that the CNEL will receive a favorable evaluation once the details of the program are known, transfer of HG support from SNIT to the CNEL could be made coincident with the transfer by the GOT of financial responsibility for "Economic" housing from SNIT to the CNEL.

Meanwhile, the survey team recommends the assignment to Tunisia of a senior level technician experienced in housing, familiar with the HG program, and knowledgeable in housing policy determination and implementation in developing countries. The provision of such technical assistance would not only assure proper utilization of the HG resource, but would also facilitate the future transfer of HG support from SNIT to the CNEL.

A. EXISTING HOUSING STOCK, SUPPLY, AND DEMAND

1. Introduction: This section of the report contains a profile of the housing stock of Tunisia, with emphasis placed on urban conditions. Within this context, supply and demand conditions are discussed, leading to an estimate of the housing deficit.

2. Housing Stock: According to the nationwide census conducted in 1966, the housing stock of Tunisia, with a 1966 population of 4.72 million persons, was estimated at 868 thousand units, implying that there were, on the average, approximately 5.4 persons per unit. Table A1 contains a detailed presentation of the 1966 housing stock by urban area and type of housing unit.

The 1971 review of the housing stock, which provides a breakdown between urban and rural units, reveals an overall increase in the housing stock of 16.4% over the period 1966-71. The data are shown in Table A2. Given a 1971 population of 5.24 million, the increase in the housing stock reduced the average occupancy from 5.4 persons per unit in 1966 to 5.2 persons in 1971.

3. Urban Housing Conditions:

a. Size: The latest information available (1966) indicates that the vast majority of the dwelling units which make up the Tunisian housing stock are one-room and two-room units. This type of dwelling accounts for approximately 83% of the total housing stock. A detailed breakdown is given as follows:

TABLE A1
HOUSING STOCK OF TUNISIA, 1966
(Number of Dwelling Units)

<u>Gouvernorat</u>	<u>Individual Units</u>	<u>Apartment Units</u>	<u>Collective Units (Rental)</u>	<u>Gourbis</u>	<u>Other*</u>	<u>Total</u>
Tunis & Banlieue	63,374	25,538	33,484	18,087	2,563	143,046
Bizerte	24,418	2,959	5,300	28,370	900	61,947
Béjà	16,288	219	3,722	38,615	893	59,737
Jendouba	13,053	118	1,522	32,633	181	47,507
Le Kef	18,824	171	2,216	35,572	1,151	57,934
Kasserine	9,542	48	809	28,969	2,374	41,742
Gafsa	26,083	135	3,688	26,249	7,276	63,411
Médenine	24,370	41	4,487	12,630	8,791	50,319
Gabès	10,930	224	7,701	15,113	6,812	40,780
Sfax	44,097	1,893	8,351	24,849	1,994	81,184
Kairovan	16,213	130	2,908	34,888	1,032	55,171
Sousse	53,726	2,074	14,696	31,302	1,086	102,785
Nabeul	34,253	462	10,972	15,916	826	62,429
TOTAL	355,171	34,012	99,836	343,094	35,879	867,992

*The census specifies "other" units as tents, ruins, and other unacceptable types of permanent accommodation.

TABLE A2
HOUSING STOCK OF TUNISIA, 1971
(Number of Dwelling Units)

<u>Gouvernorat</u>	<u>Urban Units</u>	<u>Rural Units</u>	<u>Institutional Units</u>	<u>Total</u>	<u>Percent Increase</u>
Tunis & Banlieue	177,870	33,892	336	212,098	48.3%
Bizerte	36,930	25,017	57	62,004	.1%
Béja	13,441	46,296	48	59,785	.1%
Jendouba	8,205	44,053	43	52,301	10.1%
Le Kef	12,519	51,213	45	63,777	10.1%
Kasserine	6,370	38,949	33	45,352	8.6%
Gafsa	30,679	42,590	78	73,347	15.7%
Médenine	12,234	42,626	65	54,925	9.2%
Gabès	20,367	24,495	42	44,904	10.1%
Sfax	54,254	40,264	52	94,570	16.5%
Kairouan	12,157	47,428	75	59,660	8.1%
Sousse	80,309	41,371	97	121,777	18.5%
Nabuel	30,350	35,205	75	65,630	5.1%
TOTAL	495,685	513,399	1,046	1,010,130	16.4%

1 room	59.0000%	8 rooms	.0700%
2 rooms	24.0000%	9 rooms	.0300%
3 rooms	9.0000%	10 rooms	.0170%
4 rooms	3.5000%	11 rooms	.0004%
5 rooms	1.0000%	12 rooms	.0064%
6 rooms	.4000%	undetermined	2.8470%
7 rooms	.1300%		

b. Potable Water Supply: Also as of 1966, only 7% of urban dwelling units were supplied with potable water through a public (pressure) piped system; 33% of the units obtained their water from cisterns and 60% of the units had access only to individual or communal wells.

c. Electric Power Supply: The 1966 census reveals that only 23% of urban housing units have electric power; 76% of the units do not have electric power, with the balance undetermined.

d. Gas Supply: Only 19% of urban dwelling units are provided with gas while 80% have no gas supply. The balance of 1% is undetermined.

4. Mode of Tenure: As shown in Table A3, the Tunisian housing stock is largely owner-occupied, with 73% of the units falling into this tenure category.

TABLE A3

MODE OF TENURE, 1966
(percentages)

<u>Gouvernorat</u>	<u>Owner</u>	<u>Tenant</u>	<u>Supplied by Parents</u>	<u>Supplied by Employer</u>	<u>Other</u>
Tunis	43.0%	44.0%	4.6%	3.8%	4.6%
Bizerte	63.0	18.1	7.0	7.5	4.4
Béjà	74.2	7.9	4.6	5.6	7.7
Jendouba	78.5	8.6	6.9	2.9	2.7
Le Kef	80.0	6.6	6.4	3.6	3.4
Kasserine	83.0	5.4	2.6	1.2	7.8
Gafsa	86.0	5.0	3.1	2.3	3.6
Médenine	88.3	5.0	2.4	.9	3.4
Gabès	84.0	8.0	3.5	1.0	3.5
Sfax	79.4	8.9	6.7	2.1	2.9
Kairouan	87.0	6.8	2/9	2.0	1.3
Sousse	80.8	8.6	7.1	1.0	2.5
Nabuel	73.0	8.4	8.3	6.9	3.4
TOTAL	73.0	14.2	6.7	3.2	3.5

5. Housing Supply: The combined efforts of the public and private sector over the 1962-72 period resulted in the construction of 105,412 housing units, as shown in Table A4.

TABLE A4

HOUSING PRODUCTION, 1962-72
(Number of Units)

	<u>Public Sector</u>	<u>Private Sector</u>	<u>Total</u>
1962-64	14,800	15,300	30,100
1965-68	11,100	20,200	31,300
1969-70	7,473	11,600	19,073
1971-72	12,742	12,097	24,839
TOTAL (1962-72)	46,115	59,197	105,312
Uncontrolled Increase in Gourbis & Other Dwellings			23,475
GRAND TOTAL			128,787

New housing production during 1962-72 was insufficient to eliminate the housing deficit, which, based on the natural growth of the Tunisian population, was estimated at 60,000 units at the end of 1972.

The current deficit should, however, be increased to include the loss of dwelling units attributable to the March, 1973, floods which resulted in substantial damage to the housing stock of northern Tunisia. It has

been established that 2,890 permanent dwellings were damaged with losses estimated at 680 thousand dinars. Ninety-one homes were destroyed, at an estimated loss of 45 thousand dinars. Moreover, 11,714 gourbis were totally destroyed, replacement of which is estimated to cost just over one million dinars.

Considering the current population growth rate and the production of new housing units, as well as replacement requirements, all of which are projected under the 1973-76 development plan for housing, the housing deficit will continue to increase at an average rate of 5,560 units per year.

6. Housing Demand: The 1966 census calculated the population of Tunisia at 4.72 million persons and estimated its natural rate of growth at 2.8% per year. Thus, given a family structure averaging 5.07 persons per family, the calculated increase in population over the coming years will result in a requirement of approximately 20,000 new housing units per year.

Moreover, of the 868,000 available units enumerated in the 1966 census, 379,000 or 43.7%, are "gourbis" or other substandard units. To eliminate such units from the housing stock by replacing "gourbis" with acceptable structures and relocating their occupants, it is estimated that the construction of an additional 17,000 new units must be constructed annually over a twenty-year period.

Currently, the average density of dwelling occupancy per room is 3.15 persons. Reducing this density to the more desirable level of

2.0 persons per room is estimated to require the annual construction of 16,000 additional new units over a twenty-year period.

Finally, an estimated 6,000 additional units must be constructed annually over a ten-year period to eliminate the housing deficit, estimated at 60,000 units at the end of 1972.

Thus, over the next ten years, annual Tunisian housing requirements can be summarized as follows:

a. Accommodation of population increase	20,000
b. Elimination of housing deficit	6,000
c. Replacement of substandard units	17,000
d. Reduction of density of occupancy	16,000
	<hr/>
TOTAL	59,000

For the second decade, assuming elimination of the 1972 housing deficit, the total requirement for annual production would fall to 53,000 units.

Translation of this need into effective demand is partly a function of the Tunisian government's housing subsidy program, which is discussed in detail in the next section. It should be noted here, however, that the government's capital and interest subsidies have been used to keep payments for the lowest-priced units at 4 dinars per month (about \$10 at the September, 1973, exchange rate). This monthly payment is well within the means of the regularly-employed urban worker and is attainable even by many rural and suburban families.

On a broader basis, Tables A5 and A6 portray potential effective demand in terms of the 1971 distribution of family income and of annual income requirements for four different mortgage amounts under alternative interest rates and maturities.

Comparison of the data contained in Table A6 with that in Table A5 reveals that approximately 67% of Tunisian families can afford a 500 dinar mortgage at 5% interest over 15 years, assuming that no more than 25% of the family's income is devoted to housing, that approximately 55% of the families can afford a 1,000 dinar mortgage under the same terms, but that only about 13% can afford a 3,000 dinar mortgage, again under the same terms. Inasmuch as Table 6 shows income requirements for other interest rates and other maturities, the reader can determine how the potential market contracts as interest rates rise and maturities shorten and how it expands as interest rates fall and maturities lengthen, given the same distribution of income.

Given that 1972 and 1973 were exceptionally good years for the Tunisian economy (see Section I), it is virtually certain that the 1971 income distribution understates the potential market.

It should also be noted that the foregoing analysis does not explicitly take into account the selling price of the housing unit, since this will depend on the percentage downpayment. For example, if downpayments are 30%, a 1,000 dinar mortgage will permit the purchase of a house selling for 1,428 dinars, or 3,570 dollars at the September, 1973, exchange rate. If, however, a 15% downpayment is made, the 1,000 dinar mortgage permits the purchase of a housing unit priced at

TABLE A5

1971 FAMILY INCOME DISTRIBUTION
(Dinars)

<u>Family Income</u>	<u>% of Families</u>	<u>Cumulations</u>	
Less than 100	32.2%		100.0%
100 - 200	5.3%	37.5%	67.8%
200 - 300	7.1%	44.6%	62.5%
300 - 400	8.4%	53.0%	55.4%
400 - 500	10.8%	63.8%	47.0%
500 - 700	15.1%	78.9%	36.2%
700 - 900	8.1%	87.0%	21.1%
900 - 1,200	5.2%	92.2%	13.0%
1,200 - 1,500	2.4%	94.6%	7.8%
1,500 - 2,000	1.9%	96.5%	5.4%
Over 2,000	3.5%	100.0%	

TABLE A6

**ANNUAL INCOME REQUIREMENTS: 25% OF INCOME ALLOCATED TO HOUSING
(Dinars)**

<u>Maturity</u>	<u>Mortgage Amount</u>	<u>5%</u>	<u>Interest Rates</u>		
			<u>6%</u>	<u>7%</u>	<u>8%</u>
10 Years	500	255	266	279	291
	1,000	509	533	557	582
	2,000	1,018	1,066	1,114	1,164
	3,000	1,528	1,598	1,672	1,747
15 Years	500	190	202	216	229
	1,000	380	405	432	459
	2,000	759	810	863	918
	3,000	1,139	1,215	1,294	1,377
20 Years	500	158	172	186	201
	1,000	317	344	372	401
	2,000	634	687	744	802
	3,000	950	1,031	1,116	1,204

only 1,176 dinars, or \$2,940.

A further implication can be drawn from these data by assuming that the income distribution remains unchanged between 1971 and 1974 and that the number of families in each income category grows at the rate of the overall population growth. In 1973, there were approximately 396,000 families which could afford a 2,000 dinar mortgage. Assuming that this group of families would grow by 2.8% in 1974, it follows that there would be 11,000 new families added to this category in 1974. Therefore, in simple terms, there would be a potential effective demand for 11,000 units priced at 2,857 dinars, assuming a 30% downpayment, or at 2,353 dinars assuming a 15% downpayment. Yet the 1973-76 development plan calls for construction of only 4,527 units in this approximate price range in 1974.

Although the foregoing analysis is certainly inexact, the view that supply, not demand, is the real constraint can be further supported by reference to the number of housing applications. The Société Nationale Immobilière Tunisienne (SNIT), which is the national housing agency, has received over 100,000 housing applications, far more than it has the capacity to produce. Moreover, applications for specific projects are closed well before construction begins. For example, all of the units (5,100) in the Ras Tabia project were sold the year before construction began and the SNIT office in Sfax already has 3,500 applications for a 3,000-unit project which will not be initiated until 1974.

The next section of the report deals with government policy toward the shelter sector and, in particular, with the various subsidy and

loan programs of the government. The construction industry and its capacity to produce housing units will be discussed in detail in a subsequent section of the report.

B. THE ROLE OF GOVERNMENT

1. Introduction: This section of the report describes and evaluates the shelter sector policies of the Tunisian government and analyzes its entrepreneurial, financial, and regulatory activities with respect to the shelter sector.

2. Shelter Sector Policy of the Government of Tunisia: The shelter sector policy of the Government of Tunisia (GOT) has consistently embodied state intervention to assure an increased supply of so-called "social" housing, i.e. housing for moderate and low-income families. To achieve this basic goal, the GOT shelter sector policy during the last 10 years has focused primarily on various forms of aid to subsidized construction and secondarily on the provision of infrastructure and town-planning.

Within this context, the GOT has demonstrated an ability to shift its emphasis and to modify its strategies, sometimes abruptly, to accommodate its social goals to its own fiscal and budgetary constraints.

To illustrate this pragmatic approach, it is worth noting that a large-scale, state-sponsored housing construction effort under the 1962-64 development plan was abruptly halted in 1965 because the GOT recognized its financial inability to continue. The 1965-69 period was one of non-emphasis of the shelter sector. This approach was likewise abandoned in the face of an overwhelming housing need and a new strategy was adopted which concentrates housing construction in a strengthened, reorganized, and unified national housing agency.

The 1973-76 development plan now envisages a certain number of structural reforms directed not only toward improving and expanding GOT operations, but also toward decentralizing and encouraging greater private sector participation. These initiatives include the following, for which legislative action has already been taken or is underway:

- a. Organization of a national savings bank for housing and a contract savings system.
- b. Establishment of an urban housing land bank.
- c. Legislation to regulate and encourage the formation of private real estate development companies.

Additional proposals by the National Commission on Housing and Town Planning include:

- a. Establishment of a research center to investigate techniques for the reduction of construction costs, to develop construction norms and to promote standardization of construction.
- b. Enactment of a housing code setting forth minimum standards of occupancy and sanitation for existing housing.
- c. Establishment of minimum professional standards for and registration of architects, engineers, and construction companies.
- d. Improvement of the organization and coordination of the various GOT departments involved in town planning, urbanization, and housing.

Current proposals also include a continued emphasis on internal savings and capital generation through both the relatively high downpayment required under all programs and shorter loan amortization periods. It is

anticipated that the proposed contract saving system will result primarily in an increase in new household savings and the GOT assumes that the capital required for the ten-year mortgages will be derived primarily from increased saving in the postal savings system. Furthermore, on the basis of past practice of the GOT, it is presumed that entry into the contract saving system will be controlled and that, by linking each savings account to a mortgage in a controlled-entry system, the GOT is seeking to insure that the desire for housing will not lead to a deformation of the financial system through transfer of savings from general purpose intermediaries (commercial banks, postal savings) to limited purpose intermediaries (housing bank).

It is felt that the willingness of the GOT to attempt new programs and solutions, as well as to abandon strategies which prove to be nonproductive, is to be commended. Moreover, the GOT is expected to continue to be willing to alter its policies and strategies in response to changing conditions.

3. Direct Participation of the Government in Shelter Sector

Activities:

a. Housing Production: Direct construction by the GOT has been limited to "social" housing for low-income families, financed under very favorable terms. Middle-income housing has been financed chiefly through a state-guaranteed loan program entrusted to the GOT-controlled Société Tunisienne de Banque (STB), supplemented by an annual construction subsidy to the home owner.

According to the National Commission on Housing and Town Planning, 105,312 housing units were constructed of modern materials between 1962 and 1972, representing approximately one-fourth of the country's current stock of modern housing units and an investment of 206.9 million dinars.

Direct and indirect participation of the GOT in this construction effort represented 43.7% of the units built and 27% of the aggregate investment, as shown below in Table B1.

TABLE B1

NEW HOUSING CONSTRUCTION IN TUNISIA
1962-72

	<u>Number of Units</u>	<u>Value (Millions of Dinars)</u>
Direct Construction	39,200	36.6
Loan Guaranty Program	6,915	19.5
Private Sector	<u>59,197</u>	<u>150.8</u>
TOTALS	105,312	206.9

During the early 1960's, the GOT and various political subdivisions directly sponsored the construction of approximately 16,000 housing units destined for low-income families. These units were occupied under very lenient terms -- 30-year repayment at no interest or at 2% interest -- and many of these units were allocated on the basis of need without regard

for the family's ability to repay the loan. The GOT budgeted 11.1 million dinars for this program and an additional 10.3 million dinars for the guaranteed loan program.

By 1965, it became clear to the GOT that it could not continue to finance housing investment at this rate from budgetary resources. Downpayments were increased to 20% and the repayment term was decreased to 20 years for "social" housing. Moreover, funding for this program and for the guaranteed loan program was drastically curtailed. Consequently, during the period of the 1965-68 development plan only about 2000 units were produced under each program, involving a total investment of approximately 7.7 million dinars.

Under the 1969-72 development plan, the GOT housing production strategy was redirected. While the STB guaranteed-loan program was maintained at approximately 300 units per year, in addition to the mortgages which the STB could generate from amortization of its portfolio, the Société Nationale Immobilière Tunisienne (SNIT), which is the national housing agency, was reorganized to become the major GOT instrumentality for the construction of low and moderate-income housing. Downpayments were increased to 30%, repayment terms were reduced to 10-15 years, and the sales and collection operations of SNIT were reorganized on a business-like basis. During the 1969-72 period, SNIT reports housing starts totaling 18,577 units, representing a total investment of 21.3 million dinars.

The 1973-76 development plan for the housing sector, prepared by the Commission Nationale Sectorielle de l'Habitat et de l'Urbanisme for the Ministry of Public Works and Housing, sets a target of 71,000 new housing

units of various types in various localities over the four-year period. The housing sector plan further states the intention to retard the current growth in the national housing deficit and to provide the basis for a continuing program to eliminate the deficit by 1981.

The GOT realizes that the target volume of 71,000 units, or an average of 17,750 units per year, to be constructed during 1973-76 will fall far short of the annual demand for new housing, which is estimated at 26,000 units, excluding any improvement in the quality of the housing stock. The GOT also realizes that any attempt to accelerate production to a level which would satisfy demand in so short a period would be totally unrealistic and could not be supported by presently available construction and financial capabilities. Moreover, it is fully understood by the Tunisian authorities that parallel improvements in construction techniques, in the supply of skilled labor for the construction industry, in the productive capacity of the construction materials industry, and in financial capabilities must take place to support the increased tempo of construction activity required to eliminate the housing deficit by 1981.

The measures proposed for the achievement of the plan targets, which are currently under review by the GOT, are, however, reasonable and within the overall capability of the country.

The detail of the annual housing construction targets for the 1973-76 plan period are given below in Table B2. These data indicate that, over the four-year period, 44,600 units will receive some form of GOT assistance and that 26,500 units are expected to be constructed without GOT assistance. Of the 44,600 assisted units, approximately 95% can be classified as rural and urban "social" housing; the balance of 2,000 units fall into the middle-income category.

TABLE B2

PLANNED HOUSING CONSTRUCTION
1973-76

	<u>Assisted: (Number of Units)</u>					<u>Non-Assisted</u>		
	<u>Rural</u>	<u>Urban</u>	<u>Economic</u>		<u>Middle</u>	<u>Sub-</u>	<u>(Number of</u>	<u>Total</u>
			<u>Type A</u>	<u>Type B</u>	<u>Income</u>	<u>Total</u>	<u>Units)</u>	
1973	1,255	1,756	4,028		427	7,466	6,625	14,091
1974	3,348	2,485	4,527		640	11,000	6,625	17,625
1975	7,128	2,953	2,399		520	13,000	6,625	19,625
1976	8,269	2,906	1,546		413	13,134	6,625	19,759
TOTAL	20,000	10,100	6,250	6,250	2,000	44,600	26,500	71,100

Unit costs for the "rural" housing units are estimated at 700 dinars, those for "urban" units at 900 dinars, those of "Type B Economic" units at 1,800 dinars, those of "Type A Economic" units at 2,600 dinars, and those of the "middle-income" category at 6,000 dinars. Average unit costs of the non-assisted units are estimated at 3,000 dinars.

Over the four-year period, investment in "assisted" housing is targeted at 62.5 million dinars, of which 14.0 million is allocated to "rural" units, 16.25 million to "Type A Economic" units, and 12.0 million to "middle income" units. Investment in "non-assisted" housing is expected to total 80.0 million dinars and the grand total of housing investment for 1973-76

is targeted at 142.5 million dinars.

The construction of the 30,000 "rural" and "urban" units under the 1973-76 plan has been assigned to SNIT; all of these units will receive some form of GOT subsidy. The "economic" units are expected to be constructed in part by SNIT and in part by private enterprise. All units of this type will receive some form of GOT subsidy. The "middle income" units, which are primarily apartments located in multi-family structures, will be constructed by SNIT and by private enterprise and will receive GOT loans, but no construction subsidies. The "non-assisted" units, as the term implies, will be constructed and financed exclusively through the efforts of private enterprise.

The 1973-76 development plan does not identify the geographic distribution of the programmed housing units. Special commissions established by the GOT are currently surveying and studying the conditions in various regions of the country to determine local housing needs. Their findings and recommendations are to be presented to the Ministry of Public Works and Housing in June and July of 1974. A special committee of the Ministry will then, on the basis of the work of the commissions, determine the regional distribution of the units programmed under the plan.

b. The Financial Role of the GOT:

(1) Budgetary Support: Direct GOT financing has been used to provide three types of assistance to the shelter sector. These are as follows:

(a) Construction Advances: Construction advances for state-sponsored housing projects, which were originally carried

out by various political subdivisions but which are now the province of SNIT, are by far the most important form of direct budgetary support. The units constructed under this type of support are held by SNIT as a part of its capital and loan amortization payments may then be reinvested in new housing projects. GOT budget constraints have, however, prevented a regular and continuous flow of resources into this program.

(b) Construction Subsidies: Based on regulations issued on June 20, 1960, in conformity with the Decree of December 17, 1950, construction subsidies are available to individuals or corporations, public or private, who undertake in Tunisia the construction, extension, or rehabilitation of housing units for owner occupancy or for rent at less than certain specified ceilings. The amount of the subsidy, which is paid annually for 20 years, beginning one year after issuance of the certificate of completion, is based on the type of construction, the kind of structure, and the size of the units. The subsidy must be authorized by both the Ministry of Public Works and Housing and the Ministry of Finance.

The early experience of the GOT with this program revealed that the average cost of housing units built privately with the aid of the subsidy was significantly greater than the cost of units directly sponsored by SNIT. Indeed, it was discovered that the average cost of the subsidized units was greater than that of units constructed by the private sector without the subsidy and that the number of units constructed was significantly less. Consequently, the GOT reduced

the availability of subsidies to private builders.

During the 1973-76 plan period; however, the subsidy is expected to encourage construction by companies which are organized and supervised under the proposed law for the promotion of real estate development companies.

(c) Home Improvement Loans: Home improvement loans are granted through the Fonds Nationale pour l'Amelioration de l'Habitat (FNAH), which was established in 1956. The primary source of funds for the FNAH is a real estate tax equal to 4% of the actual or imputed rental value of the property and the amortization of loans made previously.

These funds are deposited by the Ministry of Finance at the Société Tunisienne de Banque (STB), which serves as the administrator for loans made under the FNAH. The sole purpose of these loans is the improvement of the existing housing stock, such as repairing roofs and walls or for adding a toilet, and cannot be used for the construction of new homes nor for their completion.

Applications for individual loans are first made to the Ministry of Public Works and Housing. Approval of applications is performed by a panel composed of representatives of the Ministry of Public Works and Housing, the Ministry of Social Affairs, the Ministry of Public Health, and the STB. Upon approval, the STB prepares the necessary documents and disburses the loan.

Loans currently range up to 400 dinars, with maturity of up to five years. Interest rates range from zero to three percent,

depending on the income of the borrower. Loans for the addition of central heating, however, bear interest at 6%.

In addition, the FNAH receives the proceeds of the sale of popular housing owned by the municipalities. These funds can then be used to finance infrastructure, primarily sanitary sewage, in popular housing subdivisions.

During the past decade, some 14,000 homeowners have benefitted from this program and, from a broad economic point of view, it is clear that the FNAH plays an important role in promoting capital formation in the household sector. Moreover, the FNAH serves, to some extent, as an income redistribution mechanism. Even though the tax should be roughly proportional to income, loans tend to be limited to the lower income groups.

As of the end of 1971, the value of loans outstanding under the program amounted to 3.654 million dinars, while the financial resources of the program on deposit with the STB amounted to 4.514 million dinars.

The extent of GOT budget support to the shelter sector is detailed below in Table B3.

TABLE B3

DIRECT BUDGETARY SUPPORT TO THE SHELTER SECTOR: 1962-72
(Millions of Dinars)

<u>Plan Period</u>	<u>Advances to Public Builders</u>	<u>Subsidies to Private Builders</u>	<u>FNAH</u>	<u>Total</u>
1962-64	10.017	.474	.896	11.387
1965-68	2.105	.317	1.192	3.614
1969-72	11.832	.208	1.460	13.500
TOTAL	23.954	.999	3.548	28.501

(2) Guaranteed Loans: The same legislation which established the construction subsidy program also set forth eligibility criteria for a loan guaranty program for construction of housing units within specified ceilings on construction costs per square meter. Administration of this program was assigned to the GOT-controlled Société Tunisienne de Banque (STB), the country's largest commercial bank.

During the last three development plan periods, spanning the years 1962-72, the STB made 7,110 mortgage loans totalling 18,906,000 dinars. The detail of this activity, by plan period, is given below in Table B4.

TABLE B^A

GUARANTEED LOAN PROGRAM: 1962-72

<u>Plan Period</u>	<u>Number of Loans</u>	<u>Original Mortgage Amount (Dinars)</u>
1962-64	3,500	10,272,000
1965-68	2,321	5,027,000
1969-72	1,289	3,607,000
TOTAL	7,110	18,906,000

The GOT guaranty of principal, interest, and accessory charges is issued to the individual borrower by the Ministry of Finance upon the presentation of house plans and specifications approved by the Ministry of Public Works and Housing. This guaranty permits the beneficiary to obtain a loan of up to 20 years from the STB at an interest rate of 5.5% for the first five years and of 7.65% for the remainder of the term of the mortgage.

The guaranty, payable in cash to the STB, is called only as a last resort if, in the event of foreclosure and resale, the STB is unable to recover its investment completely. Since the program's initiation in 1959, the STB has financed 8,603 units under this program and, thus far, has never had to call on the guaranty.

Under a contract between the GOT and the STB, the STB is authorized to discount its loans during the first five years of the mortgage with the Central Bank of Tunisia (BCT). The interest rate is limited to not more than two percentage points above the BCT discount rate. At the present time, the 5.5% interest rate on mortgage loans gives the STB a spread of 1 1/2

percentage points against the 4% BCT discount rate.

During the remaining term of the mortgage, i.e. the last 15 years, the STB is authorized to sell mortgage-based obligations on the open market, bearing a 5% rate of interest. Given that the rate of interest on mortgages after the first five years of their term is 7.65%, the STB is permitted a spread of two percentage points plus .65 of one point as an issuance charge. In the event the STB is unable to place its obligations, it is permitted to borrow the necessary amount from the Treasury on a short-term basis.

In 1970, the GOT restricted the guaranteed loan program in several ways. Downpayment requirements were increased to a minimum of 30%, with priority placed on house-completion loans. Eligibility was almost completely restricted to home owners, and a ceiling of one million dinars per year was placed on the total amount of new loans to be guaranteed.

This ceiling was, however, raised to 1.5 million dinars when it was realized, in June 1973, that because of the great demand for guaranteed loans, the one million dinar quota would be exhausted by August. And in September, 1973, the Council of Ministers agreed to maintain the 1.5 million ceiling for the 1973-76 plan period.

Thus, guaranteed loans during 1973-76 will finance construction investment of, perhaps, 9 million dinars, whereas private housing investment is targeted at 80 million dinars. Although GOT sources indicate that the purpose of the program is to continue to encourage participation of the financial community in housing finance, the guaranteed loan program

probably will have no substantial effect on private sector construction activity.

(3) Caisse Nationale d'Epargne Logement -- National

Savings Bank for Housing: The GOT has passed enabling legislation to permit the creation of a national savings bank for housing -- the Caisse Nationale d'Epargne Logement (CNEL) -- and a draft set of regulations governing the savings and loan programs of this institution has been prepared. At the time of the survey team's visit, no precise information was available as to exactly how the GOT proposes to organize the CNEL.

It is known, however, that the program calls for a contract savings system. Savings contracts will run for four years, with deposits yielding 4% interest compounded annually. Upon completion of the four-year savings contract, the GOT will pay the saver a bonus equivalent to an additional 2% interest on the account. This savings bonus will be financed by the GOT from the same sources as its construction subsidy and, in fact, will replace the construction subsidy for that class of housing units to be financed by the CNEL.

The savings contract is in the amount of 33% of sales price of a Type A or Type B "Economic" unit, currently constructed by SNIT in the 1,200-4,000 dinar price range. Savings accounts can be opened only in connection with a home-loan contract and savers who do not fulfill their contract may withdraw their deposits only upon signing a waiver of their future right to participate in the plan.

Initially, the GOT expects loan funds to be derived from increases in postal savings, supplemented by advances from the Treasury as necessary. The system is designed to become self-sustaining eventually. With the completion of the first four years of operations, at which time the first loans will be made, the system is expected to serve as the sole source of long-term funds for the construction of middle-income housing, which is to be developed by SNIT and by private, GOT-supervised, limited-profit developers.

Under this policy, SNIT will continue to collect downpayments, construct, and sell under lease-purchase housing units which cost less than 1,200 dinars and more than 4,000 dinars -- two markets which it also currently services. But in the critical "Economic" housing segment of the market, SNIT's role will be that of a developer.

c. Support and Regulatory Activities:

(1) GOT Agencies: Like most governments, the GOT has a number of bureaus and services performing shelter sector functions, not always with complete coordination. Among the GOT agencies are the Ministry of Plan, the Ministry of Finance, and within the Ministry of Public Works and Housing, the Housing Division, the Town Planning Division, the Division for Land Development, and the Division of Hydraulics and Urban Land Development.

The 1973-76 development plan calls for greater policy coordination under a new Council for Land Development and Town Planning and for the centralization of the various technical services into one ministry. This centralization should also make town planning more effective.

(2) Town Planning and Development: A limited investment of 4.5 million dinars was allocated over the past 10 years in the following ways.

The preparation of 102 town master plans, 130 development plans, 500 subdivision plans, and numerous detail studies and schematics absorbed 1.4 million dinars. The master plans remain inoperative, inasmuch as they were never committed to law.

Various modest infrastructure projects absorbed 1.3 million dinars, the most notable of which were for Monastir.

Construction of community facilities, again especially in Monastir, accounted for 1.8 million dinars.

The 1973-76 development plan carries a budget of 9 million dinars, of which 4 million is allocated to storm and sanitary sewage for subdivisions completed during the last 10 years, 4 million is allocated to the creation of master plans and development plans, and 1 million is allotted to other studies and operational expenses.

(3) Regulatory Mechanisms: The GOT has a national building code, which is supplemented by various municipal codes. The GOT also approves housing project plans through a commission composed of representatives of the Ministry of Public Works and Housing, the Ministry of Plan, the Ministry of Finance, the utility companies and the appropriate municipality.

Various reforms are proposed by the 1973-76 development plan, the most important of which is the enactment of a housing code to regulate the conditions of occupancy of existing housing. The plan also proposes

legislation requiring the licensing and supervision of architects, engineers, and construction companies.

(4) Land Banks: Enabling legislation passed April 14, 1973 provides for the establishment of three land banks for the development of tourism, industry, and housing. Only one of these, that for tourism, had been organized at the time of the survey team's visit in September, but an operating head had been selected for the housing entity (Agence Foncière de l'Habitat).

The purpose of this new institution is to acquire reserves of land, in part to dampen the speculative rise in land prices, which has been substantial in recent years. The land so acquired will subsequently be urbanized and sold at cost for housing developments in accordance with plans approved by the GÖT.

Land acquisition can be accomplished by direct purchase, condemnation, or pre-emption. Under the pre-emption procedure, no real estate transfer may take place within the areas designated for urban expansion by Decree of the Council of Ministers until after the Agence Foncière de l'Habitat has had two months to exercise its right of first refusal. After notification of a decision by the Agence Foncière de l'Habitat to purchase and of the price it is willing to pay, the seller has one month in which to accept the offer, agree to adjudication as to price, or to take his property off the market.

If the agency decides not to make an offer, it cannot exercise its right of pre-emption on the property involved for six years.

(5) Promotion of Private Housing Development: One of the disappointments of GOT housing strategy during the past decade was the failure of the loan and subsidy program to stimulate the private sector to construct a significant volume of truly low-income housing. The same period also witnessed the withering away of numerous municipal, cooperative, non-profit, and other localized housing agencies and societies. The decline of such entities was due chiefly to the withdrawal of GOT support, but they also suffered from management inadequacies and a lack of financial resources.

Although its past efforts have been disappointing, the GOT has not abandoned hopes of finding the means to promote sound private development of low and moderate income housing projects. Consequently, the National Housing Commission has completed its draft of legislation on the Promotion of Real Estate Companies. This draft legislation, according to unofficial reports, would require sponsors to be limited-profit corporations with a minimum capitalization of 50,000 dinars, qualified personnel, and a top executive or established probity. Operations of the companies would be under the general supervision of the Ministry of Public Works and Housing, which would supervise construction loan disbursements and regulate profits. Companies organized under the provisions of this legislation would receive construction loans on a priority basis and would enjoy tax exemption on income reinvested in housing.

C. PUBLIC AND PRIVATE INSTITUTIONS

1. Introduction: In Tunisia, the distinction between public and private sector institutions operating in the shelter sector is blurred, particularly with respect to matters of finance and development strategy. The major institutions, which are effectively public in their policy-making and access to finance are:

a. Société Nationale Immobilière Tunisienne (SNIT): SNIT is the national housing agency, which for the last four years has been the major instrumentality of GOT intervention in the shelter sector.

b. Société Tunisienne de Banque (STB): The STB is the country's largest commercial bank and the sole source of mortgage loans in the past. The role of the STB has, however, been significantly diminished by the GOT under the last two development plans.

c. Caisse Nationale d'Épargne Logement (CNEL): In the absence of a clear-cut decision by the GOT, it is too early to determine the institutional character of the GOT's major new instrumentality for the promotion of shelter sector activity. The proposed program of the CNEL, or National Savings Bank for Housing, will, however, be discussed at some length in Section D, below.

Inasmuch as Section D also contains a detailed description of the STB and its operations with respect to the shelter sector, this section of the report will be limited to a discussion of the institutional character of SNIT.

2. Legal Status: SNIT is an independent state corporation created by the law of September 10, 1957, as amended. It operates as a commercial

enterprise under the general direction of the GOT.

3. Role: According to its by-laws, SNIT is charged with responsibility for the construction, financing, management, sale, and leasing of real estate projects, chiefly housing projects for low and moderate income groups, for itself, for the GOT, and for provincial and municipal authorities. Since its reorganization in 1969, SNIT has been the sole GOT instrumentality for the promotion and construction of rural and urban low and moderate-income housing.

4. Political Status: The Ministry of Finance and the Ministry of Public Works and Housing jointly exercise general supervision over SNIT and name its eight-man board of directors as well as its President-Director General. The President-Director General is appointed by decree.

5. Organization: The chief executive officer of SNIT is the President-Director General. He is assisted by a Deputy Director and a General Secretary.

SNIT operates in three divisions, whose functions are generally explained by the titles of their sub-divisions:

a. Production Division

- (1) Real Estate
- (2) Programming
- (3) Construction and Supervision

b. Financial Division

- (1) Accounting
- (2) Cashier Operations

(3) Personnel

(4) Purchasing

(5) Financial Studies and Research

c. Development

(1) Sales and Credit Reviews

(2) Management, Collections, and Delinquent Accounts

SNIT has its main office in Tunis and small regional offices in Sfax, Sousse, Béjà, Nabuel, and Medenine. It employs 250 persons, 100 of which have been added in the last two years, reflecting the increase in the size of its program; the assets of SNIT have more than doubled in the last five years, rising from 16.3 million dinars at the end of 1968 to 38.3 million at the end of 1972.

6. Management and Staffing: The staff of SNIT is young and energetic, to the extent observed by the survey team. While the organization's rapid growth has attracted younger personnel who are anxious to be productive and to advance, it has also resulted in growing pains. The management of SNIT is well aware of these difficulties and has taken concrete steps to remedy them.

To illustrate, when SNIT was reorganized in 1969, it was given the responsibility for managing approximately 11,000 housing units which were constructed during the early 1960's by various municipalities, cooperatives, special disaster relief programs, etc. The individual files were not always in good order and the sheer volume overwhelmed SNIT's hand posting system.

During the last few years, however, SNIT has cleared up its files. A substantial number of the older state-sponsored units were sold to their occupants, thereby reducing the number of these units under SNIT management from 11,000 to about 6,500. Moreover, the hand posting system was replaced by computerization and billings and follow-up are now on a timely basis.

SNIT currently has under study a revised cost-accounting system which will permit it to analyze the profitability of its different operations. Completion of this study is expected by the end of 1973.

Delinquencies, however, remain a significant problem for SNIT. The number of delinquent accounts, defined as overdue by three or more months amounted to 33 % of the occupied units in July, 1973. As indicated in Table C1, the delinquency rate in SNIT-sponsored housing was lower, at 28% than the overall rate, while the delinquency rate in state-sponsored units turned over to SNIT for management was somewhat higher, at 42%, than the overall rate.

TABLE C1

DELINQUENCIES IN SNIT-MANAGED
HOUSING UNITS AS OF JULY, 1973

	<u>Total Units</u>	<u>Delinquent Accounts</u>	<u>Percent Delinquent</u>
SNIT Projects	11,148	3,181	28.5%
State Projects	6,269	2,644	42.2%
TOTAL	17,417	5,825	33.4%

The dinar value of delinquent accounts carried by SNIT has increased over the last three years, although the rate of increase in delinquencies was sharply reduced over 1971-72. Between 1970 and 1971, the dinar value of delinquencies rose from 1.392 million dinars in 1970 to 1.476 million in 1971, an increase of just over 9%. Between 1971 and 1972, the increase was from 1.476 million to 1.503 million, an increase of less than 2%.

Some delinquencies are due to seasonal factors, inasmuch as some of the collectives who remit payroll deductions do so on an annual, rather than a monthly, basis.

SNIT's concern with the delinquency problem has led it to reorganize its Delinquent Payments Section, which had a workload of 450 cases at the time of the survey team's visit. Moreover, SNIT carried out evictions for the first time in 1972. Although only about 15 evictions took place, the fact that they were made is evidence of SNIT's desire to come to grips with the delinquency problem.

7. Annual Budget and Sources of Funds: The financial resources available to SNIT are derived from five sources.

a. Capital: SNIT's capital of 110,000 dinars (as of December 31, 1972) has been provided exclusively by the GOT.

b. GOT Advances: By far the major source of SNIT financing in the past, GOT outstanding advances to SNIT at the end of 1972 totalled 7.3 million dinars. In addition, SNIT has received 2.8 million dinars in GOT loans on properties managed by SNIT and for which no repayment of principal has been required.

c. Downpayments: The 30% downpayment required of prospective purchasers is paid to SNIT as much as 18 months prior to occupancy and, thus, constitutes a significant source of working capital. Moreover, in response to SNIT's construction program, these funds have increased from one million dinars in 1968 to 9.2 million dinars in 1972. These deposits are to be transferred to the new National Savings Bank for Housing (CNEL) when it becomes operational.

d. Amortization of GOT Advances: The GOT has permitted SNIT to retain repayments of principal by the lease-purchaser of housing constructed under earlier programs.

e. Private Borrowings: SNIT undertook its first major borrowing on the private market in 1970 -- the \$10 million HG loan (5 million dinars) -- which was executed in 1972. In addition, SNIT has frequent recourse to medium-term bank credits.

Tables C2 and C3 contain, respectively, the balance sheet and income statements for SNIT for the 1970-72 period.

TABLE C2

SNIT COMPARATIVE BALANCE SHEET: 1970-72
(Dinars)

<u>Assets</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Real Estate and Immovables	6,818,422	8,370,791	10,964,904
Housing Projects	14,481,245	18,087,753	22,611,838
Accounts Receivable (Incl. delinquencies)	1,663,912 (1,352,432)	2,303,495 (1,475,532)	2,840,864 (1,503,013)
Cash-bank Deposits	<u>2,251,022</u>	<u>2,126,105</u>	<u>1,892,450</u>
TOTAL ASSETS	25,208,602	30,888,125	38,310,061
 <u>Liabilities and Net Worth</u>			
<u>Long-Term</u> Bank Loans	1,624,939	3,661,777	5,217,912
GOT Advances	6,953,195	7,288,115	7,271,115
GOT Housing Stock	<u>7,314,363</u>	<u>7,882,285</u>	<u>7,766,595</u>
SUB-TOTAL LONG TERM	15,892,497	18,772,177	20,255,622
<u>Short-Term</u> Accounts Payable (Downpayments)	5,718,101 (4,868,664)	8,020,449 (6,731,759)	13,520,341 (9,167,578)
Loans Less than 1-year	<u>60,152</u>	<u>77,103</u>	<u>137,122</u>
SUB-TOTAL SHORT TERM	5,778,254	8,097,551	13,657,462
Disputed Accounts	<u>1,620,030</u>	<u>1,489,986</u>	<u>1,773,637</u>
TOTAL LIABILITIES	23,290,781	28,359,714	35,686,721
GOT Stock	110,000	110,000	110,000
Reserves	1,738,696	2,192,569	2,457,258
Accrued Surplus	<u>69,125</u>	<u>225,841</u>	<u>56,081</u>
TOTAL NET WORTH	1,917,821	2,528,410	2,623,339
TOTAL LIABILITIES AND NET WORTH	25,208,602	30,888,125	38,310,061

TABLE C3

SNIT COMPARATIVE INCOME AND EXPENDITURES AND PROFIT AND LOSS STATEMENT: 1970-72

<u>Income</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Lease Purchase (net of. loan amortization)	41,756	258,114	11,395
Rental Income (all properties)	104,988	75,033	139,921
Interest on Deposits	247,277	284,772	364,237
Misc. Income	<u>40,550</u>	<u>8,338</u>	<u>216,892</u>
TOTAL INCOME	454,562	626,258	732,435
<u>Expenditures</u>			
Personnel	163,792	234,450	288,929
Purchase of Goods and Services	20,733	30,741	85,960
Travel	4,770	1,781	4,378
Misc. Development Costs	41,319	22,158	47,834
Financial Costs	51,524	68,826	242,155
Taxes and Misc.	<u>46,148</u>	<u>2,471</u>	<u>6,842</u>
TOTAL EXPENDITURES	328,237	360,427	676,098
Surplus (Deficit)	106,325	265,831	56,337
<u>PROFIT AND LOSS</u>			
Cash Flow	106,325	265,831	56,337
Other Revenue	3,996	3,349	4,319
Previous Surplus	16,481	85,325	89,753
Exceptional Profits	<u>1,779</u>	<u>3,104</u>	<u>6,646</u>
SUB-TOTAL SURPLUS	128,581	357,609	157,055
Amortization, etc.	25,321	71,470	60,814
Previous Deficits	33,985	58,572	39,947
Exceptional Deficit	<u>150</u>	<u>1,726</u>	<u>212</u>
SUB-TOTAL	<u>59,456</u>	<u>131,768</u>	<u>100,973</u>
NET PROFIT (Loss)	69,125	225,841	56,081

8. Number of Annual Housing Starts: During the last ten years, SNIT housing starts total 25,277 units, as shown in Table C4.

By the end of 1973, SNIT will have nearly 30,000 housing units under its management, including the stock of state-sponsored units turned over to SNIT for management.

The geographic distribution of SNIT-sponsored housing units, as of the end of 1972, is given in Table C5.

9. Relation of Operating Budget to Program Budget: During 1971, SNIT invested 4.6 million dinars in construction and collected 2.7 million dinars in rentals and lease-purchase payments. Operating expenses for the year amounted to 300,000 dinars, or 5% of program budget.

Comparable figures for 1972 are 7.9 million for construction and 4.0 million in collections. Operating expenses amounted to 676,100 dinars, or 5.7% of program budget.

10. Income Groups Served: SNIT's urban housing program has been directed primarily at the lower income groups. The middle-income program is small by comparison. GOT subsidies are utilized to hold down monthly payments in order to increase the feasibility of providing housing for the lowest income groups among the regularly employed.

Table C6 contains the detail of the SNIT housing program by income classification.

TABLE C 4

SNIT HOUSING STARTS

	<u>Number of Units</u>	<u>Value (Dinars)</u>
1963	1,600	1,977,000
1964	800	856,000
1965	1,300	900,000
1966	2,000	1,392,000
1967	700	377,000
1968	300	489,000
1969	2,234	2,655,000
1970	4,472	5,000,000
1971	5,450	5,650,000
1972	6,421	8,000,000
TOTAL	25,277	27,216,000

TABLE C5

DISTRIBUTION OF SNIT HOUSING BY GOVERNORATE

<u>Governorat</u>	<u>Units</u>
Beja	359
Bizerte	1,771
Gabes	713
Gafsa	377
Jendouba	609
Kairouan	333
Kasserine	330
Le Kef	462
Medeine	831
Nabeul	329
Sfax	3,114
Sousse	1,637
Tunis	<u>10,882</u>
TOTAL	21,240

TABLE C6

SNIT HOUSING PROGRAMS BY INCOME CLASSIFICATION
(Dinars)

<u>Program</u>	<u>Average Unit Cost</u>	<u>Loan Amount</u>	<u>Monthly Payment</u>	<u>Required Monthly Income</u>	<u>Estimated Percent of Eligible Urban Population</u>
Rural	700-900	400	4	16	N/A
Popular	1,200	700	6	24	72%
Economic					
Type A	1,800	1,260	10	40	52%
Type B	2,600	1,820	15	60	38%
Middle-Income	6,000	4,000	32	128	10%

D. HOUSING FINANCE

1. Introduction: As indicated in the two preceding sections, the GOT is extremely active in the financing of shelter sector activities, particularly in the low and middle-income price ranges. Directly and indirectly, the programs of the GOT financed 27% of the investment in housing over the 1962-72 period. The rather substantial residual of 73% was, of course, financed in the private sector.

There is, however, no financial institution other than the GOT-controlled Société Tunisienne de Banque (STB) which is engaging in long-term financing of residential construction. The financing of housing in the private sector is therefore derived from relatively short-term commercial bank loans to individuals, from loans made by relatives or friends, from current income, and from accumulated savings. Thus, it is difficult, if not impossible, to arrive at reasonably accurate estimates of the availability of funds for housing investment, especially in view of the fact that it appears that even the STB does not provide long-term loans for housing which are not connected with the government's guaranteed loan program.

Because of the difficulties involved in tracing and quantifying private sector financing of housing investment, the main substance of this section of the report will be devoted to a discussion of the operations of the STB and to an evaluation of the new GOT-sponsored savings bank for housing, the Caisse Nationale d'Epargne Logement.

2. Availability of Funds for Housing Investment:

a. Sources of Funds: As noted in the introduction, the STB is the only financial institution extending long-term loans for housing investment. Moreover, these loans are made under the GOT's guaranteed loan program. The new savings bank for housing, the Caisse Nationale d'Epargne Logement (CNEL), which will be discussed in detail below, is designed to become an additional source of long-term housing finance.

(1) Société Tunisienne de Banque (STB): The STB was established on January 18, 1957 and, from its inception, it was intended to be the nation's leading financial institution. Toward this end, the new institution was permitted to engage in any type of banking activity, including, though under some restrictions, the acquisition of venture share capital.

The GOT retains 52% of the STB's capital and, through government representatives on its board of directors, which consist only of Tunisian nationals, exercises effective control over the policies of the bank.

The organization and operations of the STB follow a rather orthodox European style of banking which requires a formal and rigid link between the maturities of the bank's assets and its liabilities. That is, under this form of banking, a bank can purchase long-term assets (i.e. make long-term loans) only to the extent of its long-term liabilities (e.g. time deposits). Thus, without further restrictions, long-term lending by the STB, for housing and other purposes as well,

is limited by the volume of its time deposits, long-term loans obtained from other entities, and its outstanding bond issues.

As of December 31, 1971, the STB had medium-term and long-term liabilities, not including time and savings deposits, of 28.6 million dinars. Time and savings deposits combined added 16.6 million dinars to the bank's medium and long-term lending capacity, to yield a total of 45.2 million dinars.

Of a total of 39.2 million dinars in medium and long-term assets, real estate loans accounted for 13.9 million dinars. The fact that the STB has medium and long-term loans outstanding which amount to only about 87% of its potential medium and long-term lending capacity, given a very strong demand for housing and mortgage financing, can be explained largely by government policy, which sets a ceiling on the volume of guaranteed loans. The rationale for this ceiling, as well as the STB's apparent reluctance to make long-term housing loans outside the guarantee program, can be given as follows.

The loan guaranty is payable in cash to the STB in the event that the STB is unable to fully recover its investment following foreclosure and resale. Since the initiation of the program in 1959, the STB has never had to call on the guaranty. Given this experience, it might appear that the GOT should have no reluctance to issue guarantees. The existence of a ceiling on the guaranteed loan program, however, derives from other policy considerations and not from default experience.

The GOT allows the STB to discount a guaranteed housing loan at the Banque Centrale de Tunisie (BCT) during the first five years of the term of the mortgage. Unrestricted issuance of loan guarantees would, therefore, weaken the government's control over the money supply.

At the end of the first five years of the term of a mortgage, the STB must repay any borrowings from the BCT based on that security. During the remainder of the term of the loan, the STB is permitted to issue and sell securities backed by guaranteed mortgages on the open market. To the extent that these securities are not absorbed by the market, the STB is permitted to borrow from the Treasury on a short-term basis. Thus, unrestricted loan guaranty issue could also expose the government budget to unanticipated pressures.

This aspect of the program is especially important inasmuch as the STB has had very little success in placing its mortgage-backed securities on the open market. Thus, the GOT is reluctant to issue guaranty authority beyond a pre-determined and planned level for monetary and fiscal policy reasons and the STB, because of its experience with security placement, is reluctant to issue mortgages for which there is no meaningful secondary market.

In the earlier years of the GOT guaranteed loan program, the role of the STB was more important than it is currently. Over the 1962-64 development plan period, the STB made 3,500 loans under the program with a total value of 10.3 million dinars. The 1965-68

development plan period was one of de-emphasis of housing investment and the STB made 2,321 loans with an aggregate value of 5.0 million dinars. With changes in GOT policy toward the shelter sector during the 1969-72 plan period, the STB made still fewer housing loans under the program. During this period, 1,289 loans were granted with a total value of 3.6 million dinars.

In 1970, the guaranty program was limited to one million dinars per year and held there until mid-1973, when it was realized that the quota would be exhausted by August, 1973. The ceiling was, therefore, increased to 1.5 million dinars and in September, 1973, the Council of Ministers agreed to maintain the 1.5 million dinar ceiling for the duration of the 1973-76 plan period. Long-term lending for residential construction by the STB under the guaranteed loan program can, therefore, rise above the value of loans granted during the 1969-72 period by a significant amount. In fact, lending of 6.0 million dinars under the program would be almost twice that of 1969-72. Nevertheless, this volume of lending will be quite small in relation to financial requirements.

The 1973-76 development plan has programmed non-assisted private sector housing investment at 80 million dinars. Allowing for 30% downpayments, the financial requirement amounts to 56 million dinars.

An additional restriction on the guaranteed loan program is that the Banque Centrale de Tunisie limits the volume of discounts of STB home loans outstanding to 5 million dinars.

(2) Other Commercial Banks: As noted in the introduction, one source of financing for residential investment is loans made to individuals by commercial banks. The available data do not, however, permit a precise determination of the proportion of commercial bank credit extended for this purpose. Only a very rough estimate can be made.

In 1971, outstanding bank credit to the construction sector amounted to 26.2 million dinars, of which 13.9 million was accounted for by STB lending under the guaranteed loan program. Moreover, 69.7 million dinars in outstanding loans were unaccounted for by sectoral classification. It may be assumed that these loans are primarily personal loans of one type or another.

If it is assumed that all of the bank credit designated as outstanding to the construction sector was utilized to finance residential construction and that all of the credit unaccounted for represents personal loans utilized for housing finance, private sector bank financing of housing would amount to 82.0 million dinars, after subtracting the 13.9 million of guaranteed loans made by the STB.

Over the 1962-71 period, private sector investment in residential construction, which was not supported by a GOT program, amounted to approximately 130 million dinars.

Without allowing for loan amortization, but making very strong assumptions about the use of bank credit outstanding to the construction sector and that unaccounted for in sectoral terms, it can be estimated that approximately 50 million dinars of the total

private sector investment, or about 40%, was financed outside the banking system.

b. Downpayments: Considering that downpayments under the GOT-sponsored housing finance programs are currently 30% of the purchase price, an estimate of 40% autofinancing in the non-assisted private sector is not exceptionally high. The 40% estimate, however, is probably an estimate of the minimum of autofinancing.

Of greater importance is the fact that private sector financing of housing investment is not believed to be long-term. Thus, even if the estimate of 40% autofinancing were reasonably accurate, the financing of housing investment outside the GOT-sponsored programs would apparently receive very little support from the financial sector.

c. Term to Maturity:

(1) Société Tunisienne de Banque (STB): The mortgages issued by the STB under the GOT guaranteed loan program have a maximum of twenty years to maturity, which is the same as the GOT construction subsidy program.

(2) Other Commercial Banks: Information on the term to maturity of loans granted by other commercial banks for housing finance was not available to the survey team. It is believed, however, that such loans are, at least nominally, short-term. For example, a bank might make a one-year loan to an individual who intends to use the funds for home financing. There may, however, be an understanding between the bank and the borrower that the loan is subject to renewal at the discretion of the bank. Nominally, the loan is short-term, although

in reality, it may be renewed a number of times. In effect, then, the borrower could obtain medium-term or even long-term financing even though the loan would be carried on the bank's accounts as a short-term loan and, indeed, the bank's obligation to the borrower would never extend beyond one year at any given time.

In fact, even the STB lists its 20-year, guaranteed loans under a short-term assets classification, entitled Bills of Exchange, because of its ability to discount the loans at the Banque Centrale de Tunisie during the first five years of the loan and, thereafter, to obtain short-term Treasury loans against these assets if bonds backed by the mortgages are not absorbed by the open market.

The practice described above for other commercial banks is, therefore, not different in substance from the way in which the STB operates. The other commercial banks maintain the liquidity of their assets by limiting the term to maturity and subjecting the loans to frequent renewal. The STB avoids this only by virtue of GOT intervention.

d. Interest Rates:

(1) Société Tunisienne de Banque(STB): Under the GOT's guaranteed loan program, the rate of interest paid by the borrower during the first five years of the loan is 5.5%; after the first five years, the rate rises to 7.65% for the remainder of the term to maturity.

During the first five years of the loan, the STB is allowed a spread of 1 1/2 points on GOT-guaranteed loans discounted at the

Banque Centrale de Tunisie (BCT), inasmuch as the BCT imposes a discount rate of only 4% on these loans.

After the first five years of the loan, the mortgage-backed securities which the STB is permitted to issue yield 5.0%, allowing the STB a spread of 2 percentage points to cover the costs of servicing the loans and an additional .65 of one point to cover the costs of note issuance.

(2) Other Commercial Banks: As in the case of determining the volume of lending for home financing by other commercial banks, no precise determination of interest rates on such loans can be made on the basis of the available information. The interest rate structure for commercial bank loans established by the BCT is, however, shown below in Table D1. From this information, it may be surmised that other financing falls into the category of "other" short-term credits, for which the rates range between 6.0% and 8.0%, and the category of "other" medium-term credits, for which the rates on rediscountable loans range from 7.25% to 8.00%. Interest rates on non-rediscountable medium-term loans are not regulated.

3. Repayment Experience: No precise information on delinquency rates for either the STB or for other commercial banks could be obtained. Representatives of the STB indicated, however, that delinquency was not a problem because of the wide use of payroll deduction and the ability of the bank to place an attachment in the event of default. It was conceded, however, that some difficulties arise because of the wide geographic dispersion of the borrowers.

TABLE D1

CENTRAL BANK RATES ESTABLISHED FOR LOANS AT COMMERCIAL BANKS
(Effective Since September 5, 1966)

<u>Classification</u>	<u>Established Rates</u>	
<u>Short-Term Credits</u>		
Overdrafts	7.25 - 8.00	
Discounts:		
	<u>Redis-</u>	<u>Nonredis-</u>
	<u>countable</u>	<u>countable</u>
Internal commercial paper	5.75 - 6.50	6.25 - 7.50
Foreign commercial paper and other export financing	4.75 - 5.75	5.25 - 6.50
Crop financing	6.00 - 6.75	6.50 - 7.25
Advances secured by "essential) products")		
Refinancing of contracts let) by the Government)	5.75 - 6.75	6.75 - 7.50
Other	6.00 - 7.50	6.25 - 8.00
<u>Medium-Term Credits</u> ^{1/}		
Credit for residential construc- tion guaranteed by the Government	5.50	
Credit to agriculture and large industrial complexes	6.25 - 7.25	
Other	7.25 - 8.00	

1/ Only rediscountable; nonrediscountable medium-term loans are not regulated.

A detailed discussion of delinquency problems encountered by the Société Nationale Immobilière Tunisienne (SNIT), the national housing agency, was given above in Section C.

4. Caisse Nationale d'Epargne Logement (CNEL):

a. Description: The Caisse Nationale d'Epargne Logement (National Savings Bank for Housing) represents a new initiative in the shelter sector by the GOT. Enabling legislation for this new program has been enacted and implementation decrees have been drafted, but operations have not yet commenced nor have operating procedures been fully specified. Consequently, many of the questions which arise naturally in the examination of such a program must, for the present, remain unanswered.

Current information indicates that the CNEL will be a controlled-entry, contract saving system. Savings accounts under the CNEL program may be opened only in connection with a home-loan contract and savers agree to deposit a certain amount of money each month during the pre-saving phase of the contract, that is, the period prior to the granting of the loan. At the conclusion of the pre-savings phase, the saver will have accumulated at least the amount of the downpayment, which is currently programmed to be one-third of the purchase price.

Deposits will bear interest at 4% per annum and will earn a bonus of 2% per annum from the GOT on deposits denominated in dinars and of 3% on deposits denominated in foreign exchange upon completion of the savings contract. Thus, the effective rates of interest on deposits are 6% and 7%, respectively. Interest earnings are not to be distributed until completion of the contract, so that these earnings are taken into account in the

determination of the deposit installments required to accumulate to the agreed-upon downpayment amount at the end of the pre-savings phase of the contract, which is to be four years in duration.

The term to maturity of the mortgage loan is to be a maximum of ten years and the loan will bear interest at 5.5% per annum. Mortgage payments may not exceed 25% of the family's income and the maximum loan amount is to be 2,000 dinars, so that the most expensive housing unit which can be purchased under this program would be priced at 3,000 dinars. Indeed, the CNEL program is, at least initially, to be restricted to the class of housing known as "Economic" housing, that currently developed by SNIT in the 1,800 to 2,600 dinar price range.

According to the draft decrees, however, the CNEL will be permitted to undertake contracts for financing of home improvement and owner-constructed units, as well as of units developed by SNIT.

The draft decrees also specify that the CNEL will be capitalized with a government grant of 500,000 dinars and that its sources of funds for mortgage loans will be as follows:

- (1) subsidies or supplementary grants and advances made to the CNEL by the government,
- (2) loans raised from national or international agencies,
- (3) the proceeds of interest on loans granted to signatories of a savings and home loan agreement,
- (4) the proceeds of the sale of movable and immovable property,
- (5) income from movable and immovable property, and

- (6) the proceeds of sums invested by the Caisse with national or international agencies.

The draft decrees are, however, silent with respect to the question of the proportion of funds to be raised from any particular source and, indeed, the specifics of the lending operations of the CNEL are not developed in the draft decrees. A hypothetical answer to this question is provided in the next section.

b. Analysis and Evaluation: The CNEL is programmed to provide the financing for "Type A" and "Type B" Economic housing, currently constructed by SNIT in the 1,800 to 2,600 dinar price range. Since the CNEL program is not expected to become operational before late 1973 or early 1974, however, it will exert no direct effect on shelter sector activities prior to the 1977-80 plan period.

Nothing is known, of course, about the target levels of construction of "Economic" housing units in the 1977-80 and subsequent development plans. Moreover, no information has been made available to the team concerning estimates of the number of savers to be admitted to the program or of the financial requirements of the CNEL. Any quantitative analysis of the program must, therefore be treated as purely illustrative and hypothetical.

An attempt has, however, been made to arrive at such illustrative, or "order of magnitude," estimates. For this exercise, it has been assumed that the CNEL will commence operations at the beginning of 1974 and will undertake contracts leading to the financing of 15 million dinars of housing investment in 1978; that is, the first group of savers would in the

aggregate, accumulate 5 million dinars in savings by the end of 1977 to supply the downpayments and the CNEL would be obliged to issue mortgages totalling 10 million dinars at the end of 1977. For computational simplicity, it has also been assumed that the 15 million dinar investment level will remain constant indefinitely.

The other assumptions upon which this illustration is based are as follows. Since savers will be allowed, according to the draft decrees, to open their accounts in any financial institution approved by the CNEL and since the CNEL will make no mortgages prior to 1977, it has been assumed that other financial institutions will hold the deposits made during the first four years of the program and, because these institutions will presumably have the use of these funds, they will pay the 4% interest on the deposits. The CNEL, however, will accrue the 2% bonus interest paid by the government. This assumption is also in accordance with the provisions of the draft decrees.

At the end of 1977, however, when the first mortgage must be made, it is assumed that the initial group of savers withdraws its deposits in order to make downpayments and that the deposits of the other three groups, those initiating contracts in 1975, 1976, and 1977, are transferred to the CNEL. These resources are used by the CNEL to make the mortgage loans to the first group of savers, those initiating contracts in 1974. Thereafter, it is assumed that the CNEL pays the 4% interest on the deposits from its own cash flow, even though savers may continue to use other financial institutions, such as the Postal Savings System, as conduits for their deposits. The draft decrees are silent on this feature of the CNEL's operation, so the reader must treat this aspect of the illustration as pure assumption.

At the end of 1977 the CNEL will have, under the foregoing assumptions, insufficient resources to grant mortgages of 10 million dinars. It is therefore assumed that the shortfall will have to be borrowed. Two alternatives are shown in Table D2, which presents the quantitative implications of the illustration. Alternative "A" shows the deficit-surplus of the CNEL assuming borrowing to cover the shortfall of resources plus the amortization of borrowings, including interest, on terms of 9% payable over 25 years. Alternative "B" makes the same assumptions, but terms of 5% payable over 10 years are employed. In the case of the 9%, 25-year loan, total borrowings amount to 9.431 million dinars, or 23.6 million dollars, while in the case of the 5%, 10-year loan, total borrowings amount to 10.021 million dinars, or 25 million dollars.

Amortization of the 9%, 25-year loan allows the CNEL, under these assumptions, to develop a surplus of resources more quickly than in the case of the 5%, 10-year loan, but the 5%, 10-year loan pays off more quickly, so that after 1987, the surplus is larger.

In our illustration, the 9%, 25-year loan might be thought of as an HG loan, while the 5%, 10-year loan might be treated as a loan from domestic sources, say, the Postal Savings System.

Inasmuch as it was suggested to the team that the increase in postal savings might constitute the CNEL's source of supplementary loan funds, Table D3 contains data for savings deposits in the Postal System and Table D4 presents an extrapolation of the growth of savings deposits in the Postal System, assuming that deposits will increase at the average rate of deposit growth over the 1962-72 period.

TABLE D2

HYPOTHETICAL CASH FLOW STATEMENT FOR THE CNEL
(Millions of Dinars)

	<u>Deposit Liabilities</u>	<u>Deposit With- drawals</u>	<u>Net Lending Resources</u>	<u>Lending Commit- ments</u>	<u>Amorti- zation Accruals</u>	<u>Alternative A</u>		<u>Alternative B</u>	
						<u>Amorti- zation Outflows</u>	<u>Deficit(-) Surplus</u>	<u>Amorti- zation Outflow</u>	<u>Deficit(-) Surplus</u>
1974	1.143								
1975	4.437								
1976	7.135								
1977	12.135	5.000	6.600	10.000			-3.400		-3.400
1978	12.135	5.000	6.000	10.000	1.302	.342	-3.040	.432	-3.130
1979	12.135	5.000	6.000	10.000	2.604	.648	-2.044	.830	-2.226
1980	12.135	5.000	6.000	10.000	3.906	.853	-.947	1.113	-1.207
1981	12.135	5.000	6.000	10.000	5.208	.948	.260	1.266	-.058
1982	12.135	5.000	6.000	10.000	6.510	.948	1.562	1.273	1.237
1983	12.135	5.000	6.000	10.000	7.812	.948	2.864	1.273	2.539
1984	12.135	5.000	6.000	10.000	9.114	.948	4.166	1.273	3.814
1985	12.135	5.000	6.000	10.000	10.416	.948	5.468	1.273	5.143
1986	12.135	5.000	6.000	10.000	11.718	.948	6.770	1.273	6.445
1987	12.135	5.000	6.000	10.000	13.020	.948	8.072	1.273	7.747
1988	12.135	5.000	6.000	10.000	13.020	.948	8.072	.841	8.179
1989	12.135	5.000	6.000	10.000	13.020	.948	8.072	.443	6.577
1990	12.135	5.000	6.000	10.000	13.020	.948	8.072	.160	8.860
1991	12.135	5.000	6.000	10.000	13.020	.948	8.072	.007	9.013
1992	12.135	5.000	6.000	10.000	13.020	.948	8.072	-	9.020

TABLE D3

SAVINGS DEPOSITS IN THE POSTAL SYSTEM: 1962-1972
(Millions of Dinars)

	<u>Savings Deposits</u>	<u>Absolute Change</u>	<u>Percentage Change</u>
1962	3.910		
1963	4.291	.381	9.74%
1964	4.791	.500	11.65%
1965	5.412	.621	12.96%
1966	6.124	.712	13.16%
1967	6.509	.385	6.29%
1968	7.088	.579	8.90%
1969	7.825	.737	10.40%
1970	8.517	.692	8.84%
1971	10.456	1.939	22.77%
1972	13.413	2.957	28.28%

TABLE D4

EXTRAPOLATED GROWTH IN SAVINGS DEPOSITS IN THE POSTAL SYSTEM
(Millions of Dinars)

	<u>Savings Deposits</u>	<u>Absolute Change</u>	<u>Less Borrowings Required by CNEI*</u>	<u>Net Change After Transfer of Funds to CNEI</u>
1973	16.197	1.784		1.784
1974	17.218	2.021		2.021
1975	19.508	2.290		2.290
1976	22.102	2.594		2.594
1977	25.042	2.940	3.400	- .460
1978	28.372	3.330	3.130	.2-0
1979	32.145	3.773	2.226	1.547
1980	36.420	4.275	1.207	3.068
1981	41.264	4.844	.058	4.786
1982	46.752	5.488	0	5.488
1983	52.972	6.218	0	6.218
1984	60.017	7.046	0	7.046

*Alternative "B" from Table D2.

While it is clear that the deposit base of the Postal System will probably be adequate by 1977 to sustain the borrowings which might be required by the CNEL, it is also clear that such borrowings might be sufficiently large to cause a significant displacement of the growth path of the resources of the Postal System in the 1977-79 period. Whether this displacement would be a serious matter or not depends, of course, upon the growth of the other demands on the resources of the Postal System.

A more fundamental consideration, perhaps, is the choice of a contract system rather than a voluntary one. The Tunisians seem to have given little thought to the establishment of a voluntary savings system patterned on the American savings and loan system. Their preference for some type of contractual system probably originates in the background and experience of the members of the government and the financial community, who are schooled in the French system of pre-saving and bond-supported mortgages.

It seems unlikely, though, given the experience of the STB in placing mortgage-backed bonds on the open market, that the CNEL will be able to follow this tradition closely. It is perhaps for this reason that borrowings from the Postal System have been viewed as a primary source of funds.

The controlled-entry aspect of the program is, of course, understandable for Tunisia, where development planning is taken seriously. Controlled-entry consistent with the number of housing units programmed for construction in a given future year seems to offer a method of minimizing supply-demand imbalances in at least one segment of the housing market.

From the financial point of view, however, a contract system which accepts deposits only in connection with a home-loan contract is typically dependent on some other segment of the financial market to obtain at least a part of the resources needed to fulfill the loan segment of the contract.

It is, of course, too early to render any definitive judgment on the proposed program of the CNEL since the complete details of its operations have not been worked out.

5. Maintenance of Value Mechanisms: The Tunisians employ no maintenance of value mechanisms, probably because they have not experienced any significant or sustained inflation.

6. Government Subsidy Programs: The GOT subsidy programs are discussed in detail in Section B of this report.

E. CONSTRUCTION INDUSTRY

1. Introduction: This section of the report primarily describes the productive capacity of the construction industry. In this context, construction methods are also discussed. In addition, information is supplied about the domestic availability of construction materials and their cost.

2. Size of the Industry: There are only eight to twelve construction firms in Tunisia which, on the basis of their manpower, capital and equipment, can qualify for larger construction projects. Some of these firms, however, specialize in certain types of construction, so that the number of general contractors is actually less than eight to twelve.

There is, nevertheless, a substantial number of small contractors which jointly, under effective management, could represent a significant construction capacity. Independently, of course, these small contractors do not offer any sizeable volume of production nor a comfortable assurance of maintaining time schedules.

Generally, all firms engaged in residential construction in Tunisia may be classified as local firms. With no notable exceptions, foreign construction firms are engaged in monumental projects or projects conceived and initiated through some form of international cooperation or assistance.

3. Labor Supply Conditions: Recent increases in construction activity, together with steady emigration, have resulted in serious shortages of skilled construction workers. Consequently, wage increases for skilled workers have increased sharply in the last two years, approximating 20% - 30% over 1971-72. As a further illustration, the daily wage for masons has doubled in the last three years, rising from approximately 1.50 dinars per day three years ago to the current rate of 3.00 dinars per day.

Through various training programs, which are expected to be intensified, the GOT is hoping to increase the rate of growth of the skilled labor supply. Moreover, wage increases in Tunisia for skilled workers should reduce the stimulus to emigrate. These factors, as well as certain difficulties encountered by Tunisian workers living abroad, provide some basis for the expectation that skilled labor supply conditions may improve in the near term.

By contrast, the supply of capable architects and engineers in Tunisia appears to be satisfactory. Tunisian architects and engineers are mostly trained in Europe and permitted to practice on the basis of their university degrees; special examination to secure a license to practice is not currently required under law, although such a law has been proposed.

Tunisian architects and engineers are not engaged strictly in the rendering of professional services. Most of them are also participating directly or indirectly in construction activity.

The high demand for housing, particularly for low and middle-income housing, has apparently permitted Tunisian architects and engineers to adhere to traditional style and design concepts. Thus, it seems evident that the competitive atmosphere has not yet developed to a degree which would force the professional society to turn to more functional and economic designs or to explore the use of other construction and structural systems which employ more advanced materials.

The Tunisians are not, however, unaware of these possibilities and if the 1973-76 development plan for housing proceeds roughly in accordance with its time schedule increasing demands will be placed upon supplies of traditional materials and the skilled labor force to an extent which will require the adoption of more productive construction methods.

4. Construction Methods: As suggested above, the Tunisian housing construction industry has not made any significant progress over the past decade in the development and application of advanced construction methods.

The shortage of skilled construction labor and the shortage of certain construction materials unquestionably suggest the need for modification of the labor-intensive approach in construction which has been favored, indeed insisted upon, by the GOT.

To satisfy the requirements of the 1973-76 development plan, the Tunisian construction industry will have to select and apply

methods which offer savings in production time and which substitute more readily available materials for those in short supply. Moreover, these new methods must involve a relatively lower skilled labor component than the currently employed techniques.

According to officials of the Ministry of Public Works and Housing, the GOT appreciates this situation and has abandoned its labor-intensive philosophy, at least insofar as skilled labor is concerned.

Any significant changes in the Tunisian construction process will, however, require considerable time to implement and the extent to which the 1973-76 housing plan will benefit from such changes is questionable. It is nevertheless obvious that the Tunisian construction industry, as well as the Tunisian professional community, will have to initiate the applicable changes immediately, regardless of whether or not they favorably affect the current plan. Otherwise, the long-run objectives of eliminating the housing deficit and improving the quality of the housing stock cannot reasonably be achieved.

5. Construction Materials:

a. Availability of Materials: During the past several months, the Tunisian construction industry has been experiencing critical shortages of some basic construction materials. Shortages of cement, lime, steel, and lumber have upset construction schedules considerably and caused substantial delays in the completion of most major projects.

These shortages can be attributed to the increase in construction activity, therefore to higher demands on limited supplies, and to inadequate planning for importation of the required materials.

Generally, most of the basic materials for residential construction, with the exception of burned brick and tile, are either directly or indirectly imported. For example, the local production of cement is dependent upon the importation of clinkers. And, since even under the best conditions, the productive capacity of the cement industry is not currently sufficient to cover consumption, a substantial volume of ready cement must also be imported. Additional productive capacity is now being put in place, but realistic estimates of the completion date indicate that this capacity will not be available before the end of 1974. At that time, however, Tunisia expects to be able to eliminate the importation of ready cement.

Tunisia does not produce construction lumber of any grade. Thus, all lumber is being imported.

There is some local production of steel bars and light weight structural steel, but the raw materials have to be imported and the volume of domestic production must be supplemented by imports.

Electrical equipment and plumbing fixtures are being imported and all construction equipment, as well as pumps, generators, transformers, filters, etc., are of foreign origin.

It is therefore apparent that a successful residential construction program is heavily dependent on efficient planning for

imports and that miscalculations in this area can result in serious delays in construction time schedules, as well as increases in costs.

Thus, considering the current capacity of the construction industry, the current shortages of skilled labor and certain construction materials, and the present labor-intensive, traditional technology being employed, the capability of the construction industry to handle the substantially increased demands placed on it by the 1973-76 plan may be regarded as questionable.

Officials of the Ministry of Public Works and Housing and of SNIT, however, claim that the local construction industry can generate a much higher productive capacity than it is presently. The construction delays on the Ras Tabia development, which is an HG project, are attributed to temporary material shortages, but other evidence suggests that these delays may derive from more fundamental sources within the industry itself.

b. Cost of Materials: Unit costs of the principal materials employed in residential construction in Tunisia are given below in dinars:

(1) Domestic Materials:

Lime for Mortar	TD	9.00	metric ton
Sand	TD	.80	cubic meter
Gravel	TD	1.90	cubic meter
Gravel chips	TD	.60	cubic meter
Stone	TD	.70	cubic meter
Plaster (lime)	TD	7.40	cubic meter

Hollow clay tile	TD	.013	unit
Steel bars (various ϕ)	TD	135.000	ton
Sanitary pipes (C.I.)	TD	1.300	LM
Water pipes (steel)	TD	1.100	LM
Turkish W.C.	TD	10.000	unit
Cement-asbestos elbows	TD	1.000	unit
Stucco	TD	.080	square meter

(2) Imported Materials:

Cement	TD	10.000	ton
Finishing hard wood	TD	6.50	square meter
Finish-wood paint	TD	.50	square meter
Glass	TD	2.00	square meter

6. Typical House Design and Construction in the Low Cost Category:

As noted above, Tunisian residential construction still employs traditional methods and materials in present housing developments.

Stone, cement, brick, or hollow clay tile are the principal materials, supplemented by a limited amount of lumber, steel bars, and, of course, the necessary finishing materials and fixtures.

Generally, low cost residential construction follows the same pattern, which may be described in detail as follows:

- a. Foundation: Foundations consist of cyclopean footings.
- b. Loadbearing and Exterior Walls: Loadbearing and exterior walls typically are made of 30 to 40 centimeter hollow clay tile, plastered on both sides. Some steel bars and concrete may be used occasionally to secure the rigidity of the supporting structure.

c. Interior Partitions: Interior partitions typically are constructed of 10 to 15 centimeter hollow clay tile, plastered on both sides.

d. Floors: The basic floor is a concrete slab over vapor barrier, finished in concrete, terrazzo, or tile.

e. Ceilings: Ceilings typically are composed of burned clay plank supported by lightweight steel or reinforced concrete beams. Cement topping and waterproofing finish are applied in one-story units where the ceiling also forms the roof. In multi-story structures, the top side of the ceiling receives a cement topping, which generally is reinforced by wire mesh and cement, terazzo, or tile floor finish.

f. Flat Roofs: Flat roofs typically are enclosed by a 30 to 40 centimeter high parapet wall and are finished, as described above, in the same way as ceilings for one-story units.

g. Vaulted Roofs: Vaulted roofs are constructed of brick or tile and commonly are finished with waterproofing plaster.

h. Windows: Windows are composed of a wood frame with fixed, wood louvers. Glass windows generally are used only in higher cost dwellings.

i. Doors: Doors consist of a wood frame and a wood panel door.

j. Kitchen: If the unit includes an interior water supply, a shelf or a simple base cabinet with a ceramic tile surface and a sink are provided. Electricity, if available, or bottled gas, is used for cooking and the fixtures are supplied by the occupant.

k. Bathroom: If a bathroom is provided, it consists generally of a small room with a ceramic tile floor, drain, and shower head. A lavatory may sometimes be added.

l. Toilet: The toilet is always separated from the bath and typically is equipped with a Turkish or a standard W.C. fixture.

m. Court: Each individual house traditionally has a court, fully enclosed by a 180 to 200 centimeter high wall.

n. Floor Space: Low cost dwellings range from 25 to 80 square meters of floor space and from one room with an outside kitchen and toilet to three or four rooms with an interior kitchen, bath, and toilet. The living room is considered the main room in the house and generally ranges from 14 to 20 square meters of floor area. Bedrooms are considered only as sleeping areas and range from 8 to 10 square meters in size. An enclosed kitchen should occupy no less than 4 square meters, while an open, or exterior, kitchen may be as little as a 2 square meters in size. The toilet is allocated one square meter; if equipped with a sink, the minimum area is 1.40 square meters.

Single family, detached units are uncommon in low-cost housing developments; the traditional and still favored style is to cluster four to six units.

The cluster approach, however, is applied horizontally as well as vertically. A combination of one, two, or even three story structures may, therefore, form a cluster of 8 to 12 individual units.

Apartment units in multi-story structure have not yet become a common form in low-cost housing developments. There are, however, some indications that the popularity of this approach is increasing in some areas of the country. In this regard, the city of Sfax appears to be leading the way.

SNIT's recently completed four-story apartment building in Sfax, comprising 720 units priced between five and six thousand dollars, have been fully occupied and appear to have been favorably received by the local population. In fact, a 3,000 unit apartment project in Sfax, which is not scheduled to begin until 1974, already has 3,500 applicants.

Multi-story apartment buildings consist of a reinforced concrete frame, concrete floor slabs, and brick or plastered clay tile curtain walls. All apartments are the same, with kitchen, shower, W. C., and three rooms covering a total area of approximately 38 square meters.

7. Construction and Development Costs:

a. Construction Costs: Construction costs currently applicable in Tunisia are given as follows:

(1) Urban Units: Urban single family dwellings in the "low cost" price range, that is, below 3,200 dinars (\$8,000), cost between 24 and 26 dinars per square meter to construct.

Urban single family dwellings in the "middle cost" price range -- between 3,200 and 6,000 dinars (\$8,000 - \$15,000) -- are slightly more expensive, ranging between 28 and 32 dinars

per square meter.

Slightly lower costs apply when the single family units are built in rows or clusters.

Low cost apartments in multi-story structures cost approximately 28 dinars per square meter of floor area.

(2) Rural Units: Single family rural housing units constructed by SNIT have the following characteristics:

The unit is one story, with 26 square meters of floor space. The units have only one fully enclosed room, measuring 5 meters by 2.5 meters, which serves as a combination living room, dining room, and bedroom. Provision is made for the addition of another room, with dimensions of 3 meters by 3 meters. The kitchen is roofed and walled on one side, but is otherwise open. The unit has a Turkish W. C. which is enclosed. No electrical power is provided and there is water supply only to the W. C.

The basic construction material is plastered brick.

The units are constructed in groups of four and each lot measures 170 square meters. No courtyard walls are provided.

The total construction cost of this unit is 700.200 dinars, or \$1,750.50 at the September, 1973, exchange rate. Costs are broken down as follows:

	<u>Dinars</u>	<u>% of Total</u>
Domestic materials	220.020	31.4%
Imported materials	135.180	19.3%
Skilled labor	80.000	11.4%
Unskilled labor	100.000	14.3%
Delivery of materials	65.000	9.3%
Land	<u>100.000</u>	<u>14.3%</u>
TOTAL	700.200	100.00%

Cost, in U. S. dollars, per square meter of house is, thus, 57; including the lot, the cost is \$67 per square meter.

(3) Gourbis: The initial cost of construction of a burbi by a new arrival is estimated to range between 50 and 100 dinars.

b. Development Costs: The cost of urbanization obviously varies with the adaptability of the site and the conditions of the available utilities and services. It can be expected, however, that the average urbanization cost for single family dwelling units will range from 1.4 to 2.0 dinars (\$4 to \$5) per square meter of lot area. For apartment buildings, the urbanization costs will add, on a prorated basis, an average of 4 dinars (\$10) to the cost of each square meter of floor space.

The geographic location of the project generally has little effect on the construction costs. When such effects exist, they are typically related to labor cost, inasmuch as the GOT maintains

equal material prices throughout the nation by means of subsidies.

This policy applies to domestically produced materials as well as to imported materials. Primarily, the subsidy applies to transportation costs, but it also applies to materials produced in Tunisia, such as ready cement, the supply of which must be supplemented by imports due to heavy demand.

Unit prices for the various aspects of urbanization are as follows:

<u>Grading:</u>	<u>Dinars</u>	<u>Units</u>
Clearing and grubbing	.070 - .090	Square meter
Cut, up to 2 meters	.800 - 1.000	Cubic meter
Extra for rocks	.700 - .900	Cubic meter
Fill	.700 - .980	Cubic meter

<u>Roadwork:</u>	<u>Dinars</u>	<u>Units</u>
Sub-base, 0/70 gravel	3.800 - 4.700	Cubic meter
Base, 0/30 gravel	3.800 - 4.900	Cubic meter
Waterproofing layer	.100 - .130	Square meter
Bituminous surface (2 layers)	.260 - .330	Square meter
Sidewalk curb	1.100 - 1.400	Meter
Sidewalk paving	1.000 - 1.300	Square meter

c. Cost Trends: Insofar as the prices quoted above are concerned, it must be realized that construction costs are currently trending upward. Due to recently experienced shortages

of construction materials (cement, lumber, steel, bricks), prolonged construction schedules, and shortages of skilled labor, construction costs were 5% - 7% higher in 1972 than in 1971. Since these conditions have not yet been corrected, further increases in costs over the near term may reasonably be anticipated.

d. Other Cost Structure: For public construction projects under GOT contract, the general contractors follow a cost percentage pattern established by the Ministry of Public Works and Housing.

This pattern is as follows:

Material, labor, and labor benefits	75.0%
General and field overhead	11.0%
Cost of construction financing	2.0%
Taxes	2.3%
Permits, bonds, fees, etc.	2.2%
Profit and contingencies	<u>7.5%</u>
TOTAL	100.0%

A private developer undertaking a housing project will usually add 20% for predevelopment, marketing expenses, and risk.

The fees for architectural and engineering services, that is, design and preparation of construction documents, generally average 3% - 3.5% of the construction cost. Construction supervision by the architect averages 3% - 4%, depending on the type of services required.

F. LAND

1. Introduction: Ownership of land in Tunisia tends to be a complex matter. Although most of the land in urban areas may be held in fee simple under individually recorded titles, the peculiarities of Tunisian history have resulted in a layering of concepts which have not yet been fully sorted out.

There are a number of different types of entities which can hold a registered title to land, each of which involves a slightly different method of transfer. These topics are discussed in detail below.

2. Land Tenure:

a. Individuals: Private individuals may hold a valid title to land either as a conventional "registered" title or as a traditional "arab" title. GOT agencies can buy and develop land held under "arab" title, although frequently a portion of the sales price is withheld until the formalities of official title reporting are completed.

b. "Habou" Beneficiaries: "Habou" land is held under a form of traditional moslem ownership which prohibits alienation of the real estate. Heirs of the original owner are entitled only to the usufruct, which with the passage of generations tends to become quite fragmented. If, however, the family dies out, the land reverts to the state and the product of the land is often donated to charitable organizations.

This system is no longer valid in Tunisia. It was abolished by the GOT, along with the related "enzel" system of transfer of possession and usufruct of "habou" land, by the Decree of May 17, 1956 and the Law of May 31, 1956, as amended July 18, 1957. "Habou" lands now in private hands may be sold under the supervision of a state official charged with the responsibility of locating and securing the consent of all the usufruct beneficiaries.

c. Public Ownership: A significant portion of land owned by the GOT, the communes, the OMVVM (Office de la Mise en Valeur de la Vallée de la Medjerdah), and other government agencies was formerly agricultural land outside municipal boundaries which was obtained from foreigners through nationalization at the time of Tunisian Independence. Transfer of title to this land by a GOT agency requires the approval of the Minister of Finance following a lengthy administrative procedure.

3. Title Registry: Before Independence in 1956, titles were registered chiefly by aliens and non-moslems. After Independence, title registry became common in urban areas and, indeed, was made compulsory in 1964. Land which is outside the official registry system, which is now predominantly agricultural, may be held under "arab" title. An "arab" title established ownership on the basis of possession over a sufficiently long period of time. Land may also be held outside the registry system under tribal ownership. The holding of "collective land" in arid zones suitable only for grazing was, however, abolished by the Law of September 28, 1957. Similarly, "communal land" holding

in farming areas was abolished by the Law of May 12, 1964.

Title registry has been obligatory for all real property since enactment of the Law of April 21, 1964. Implementation, however, is contingent upon the completion of a cadastral survey by the Topographic Service of the Ministry of Public Works and Housing. Registry of a new title takes about one year.

The procedure for new title registration involves the presentation to the Real Estate Tribunal of a request for recordation, together with a legal description of the property and proof of ownership. The Tribunal appoints a judge, who, after investigating and publicizing the claim, makes a recommendation to the Tribunal for decision.

Titles are recorded in the Office of the Conservation of Real Estate (Conservation de la Propriété Foncière), which is a statutory, independent service under the general supervision of the Ministry of Justice.

Liens and leases must also be recorded, with priority of claim given in chronological order of recordation.

Recordation fees are high: 14.2% of the sales price plus 1% of sales prices as "Salary of the Conservator" applies for transfers. Recordation of a lien costs 5.8% of the original amount of the mortgage and 1.4% of the annual rent is charged for recordation of a lease. Moreover, a renewable lease must be recorded every three years.

"Arab" titles pre-dating the official registry system are also recorded in formal records maintained by local authorities. Clear title

can be established by demonstrating uninterrupted occupancy for 15 years or for 10 years if some documentary evidence of acquisition in good faith, such as inheritance, sales contract, or gift, can be presented. Registered "arab" titles may be transferred privately, but the transaction must be recorded with a notary.

4. Land Transfer: Transfers of officially recorded titles may be made through a notary, who is, in Tunisia, a legal official qualified to handle many of the functions of a lawyer in civil matters, especially involving real estate, but who is not qualified to plead in court. Officially recorded titles may also be transferred "privately," that is, by contract between the parties. The distinction between a private contract transfer and a notary transfer is that the latter is an "authenticated act," the validity of which is guaranteed by the bond and seal of the notary. In either case, the transaction must be registered, taxed, and then transcribed into the official title maintained at the Office of the Conservator.

The Government of Tunisia has the right of eminent domain, in accordance with the Law of March 8, 1939, which it may exercise for projects in the public interest, including the development of housing projects. Condemnation proceedings can be instituted by the Ministry of Public Works and Housing, with the approval of the Minister of the Interior and the Prime Minister. Acquisition is accomplished through a Decree of the Council of Ministers, signed by the President of the Republic. Armed with this Decree, the acquiring agency exercises the right of eminent domain by paying the fair value of the property, as

determined by its appraisal and as stipulated in the Decree.

The property owner may appeal his compensation to the court. Under appeal proceedings, the Tribunal appoints three experts to make a final determination of the price.

Application of the right of eminent domain is, however, difficult, primarily because of a basic Tunisian feeling against depriving any citizen of his property, for whatever reason. Given this sentiment, it is usually difficult to get action from any of the numerous officials whose signatures are a necessary part of the procedure.

5. Availability of Land for Public Housing: The Tunisian public housing sector utilizes land owned by the GOT or the municipalities almost exclusively. The exceptions occur mainly in Tunis and the other larger cities where private land must occasionally be secured to carry out a given project.

Generally, the public-owned land represents a sufficient supply, within an economically acceptable price range, to satisfy the requirements of the 1973-76 housing program. For the future, it is expected that the newly established Agence Foncière de l'Habitat (land bank for housing) will maintain the supply of suitable land for public projects at the required level.

The prices of raw land vary considerably, primarily with respect to the type of seller, but also, of course, with location and quality. The increased demand for prime land naturally encourages speculation.

Some representative land costs may nevertheless be given. Within the city limits of Tunis-Ariana, average land costs approximate \$2.00-\$3.50 per square meter, while in the suburban areas around Tunis, land prices, on the average, vary between \$.55-\$1.50 per square meter. In areas other than the Tunis metropolitan area, representative land prices are as follows:

La Bardo-Ettahir	\$.55	per square meter
Kabaria	\$.50-\$1.25	per square meter
Ben Arous	\$.40-\$.90	per square meter.

It is also worth noting that the land for the Ras Tabia project, which can be considered as suburban land within the Tunis metropolitan area, was purchased in 1971 at \$.55 per square meter.

G. MUNICIPAL REGULATIONS AND SERVICES

1. Regulations: The design and construction of housing projects in Tunisia is governed by regulations ("Reglement d'Urbanisme et de la Construction") issued by the Ministry of Public Works and Housing.

These regulations are applicable on a nationwide basis, although additional requirements may be imposed at the municipal level. Such requirements are generally related to the local zone plan and sanitary conditions, and to the specific requirements of the national development plan.

The "Regulations" specify seven basic zones:

1. Residential
2. Civic (public, cultural, commercial)
3. Green (parks and green areas)
4. Production (light industry)
5. Transport (transportation system)
6. Non-Urban (rural -- designated for agriculture)
7. Military

Each zone is then specifically defined as to all particular design standards, limitations and conditions.

2. Review Procedures: The Ministry of Public Works and Housing is the central coordinating and enforcement institution. All major housing projects of significant size or importance are processed as follows:

- a. The project plans are presented to the appropriate official at the municipal level.

b. The municipal officer transmits the documents to the principal engineer of the Housing Section of the Ministry of Public Works.

c. The principal engineer presents the project to a special review committee for discussion and evaluation. The committee is composed of representatives of:

Ministry of Public Works and Housing

Ministry of Public Health

Ministry of Transportation

Sanitary Department

Municipal Representative

Planning Board

SONEDE (water authority)

STEG (electric power and gas)

d. The committee members present the review comments and recommendations of their offices and when the project is found acceptable, the Ministry of Public Works and Housing issues the authorization for construction.

3. Inspection: During construction, the Ministry of Public Works and Housing, as well as various other authorities, such as SONEDE, Sanitary Department, and STEG, periodically inspect the work progress.

Upon the completion of construction, the Ministry of Public Works and Housing conducts the final inspection and, if its inspectors are satisfied, the certificate of completion and the occupancy permit are issued.

4. Regulations and Procedures for Public Construction: The Société Nationale Immobilière Tunisienne (SNIT), being a government corporation, is controlled by the Ministry of Public Works and Housing, and the principal engineer of the Ministry is a member of SNIT's Board of Directors.

SNIT, although operating with substantial authority, is obligated to secure the Ministry's approval for all major operational and financial decisions.

Under these regulations, SNIT is permitted to select the construction contractors for its projects on the basis of competitive public bidding or by negotiations with qualified contractors. The final contractual arrangements and the contracts, however, have to be approved by the Ministry prior to their formal acceptance. In practice, a representative of the Ministry usually attends all contract negotiations.

Selection of the construction contractors for the GOT projects is made on the basis of certain forms of pre-qualification. The Tunisian construction contractors are divided by the GOT into several groups. Each group represents contractors of certain capacity, experience, performance record, available construction equipment, permanent labor force, and financial status.

The project size and its nature then determines the group from which the prospective contractors are invited to bid or to negotiate.

Bidding, as well as negotiating of the contract price, is closely guided by the detailed cost estimates prepared by the design architect-engineer and reviewed by the Ministry of Public Works and Housing.

5. Sewage Collection, Treatment and Disposal System:

a. Collection: There exists a substantial inadequacy of the central Tunis collection system, which is described as follows:

The Montplaisir pumping station is below capacity; sewer slopes are too flat and result in a too slow flow of sewage, therefore in a settlement and putrefaction of solids in the lines during the dry periods. This leads to emission of hydrogen sulfide (H^2S) odors in the streets and possible deterioration of sewers due to microbial sulfuric acid formation.

Infiltration of brackish ground-water through broken sewers and loose joints and entering of seawater through the unprotected storm overflows not only add greatly to the volume of sewage but also change its chemical composition to become adverse for treatment and disposal.

Some areas of Tunis and its suburbs do not have any sewers at all and discharge raw sewage into Lake Tunis, Sebkhets, or the sea.

b. Treatment: The only waste treatment of substantial size in Tunis is the combined primary treatment and activated sludge system plant "La Cherguia". It is calculated that only 50% of the 60,000 cubic meters per day of sewage collected in Tunis passes completely through the

La Cherguia plant; 30,000 cubic meters of sewage is settled and then discharged directly into the Lake of Tunis. Another 30,000 cubic meters per day passes through the activated sludge plant and is available for irrigation in the area of La Soukrs. Most of it, however, is not used and is then also discharged into the lake.

A survey of the La Cherguia plant indicates serious deficiencies and problems. The performance of the digesters designed for a high rate of digestion is limited by accumulated sand and grease and their heating system is currently not operational. The reduced and inadequate operation of gas engine power generators does not provide a sufficient waste heat supply for the digestion heating, which results in a low production of the sludge gas to drive the gas engines.

The grease and sludge removal system in the primary plant does not function, thus allowing an extensive grease accumulation.

Although the aeration and sludge return elements of the activated sludge plant appear to be functioning well, the final sludge settling tanks are discharging large amounts of bulky sludge with the effluent into the lake.

An evaluation of the system indicated that, although the La Cherguia plant could be overhauled and made functional, it can absorb only about 50% of the sewage delivered by the city system. In addition, its maintenance and operation will be increasingly expensive.

c. Disposal: As previously mentioned, most of the sewage from the La Cherguia plant and from the collection system is discharged into the Lake of Tunis. However, during the growing seasons it is

estimated that approximately 530,000 cubic meters of effluent, after activated sludge treatment, is utilized for irrigation, primarily of citrus crops.

The use of either untreated or rapidly treated sewage for irrigation of crops to be used for food may, however, raise some serious hygienic objections and could represent a substantially high health hazard.

Furthermore, the disposal of raw or freshly treated sewage by irrigation and the current discharge of excess waste water directly into the Lake of Tunis have already created problems with environmental, economic and aesthetic impact.

d. Improvement: A survey of the Tunis disposal system has been financed under USAID contract. The survey was conducted by Dr. William J. Oswald, Professor of Public Health and Sanitary Engineering of the University of California at Berkeley. The report was submitted in April 1972. It generally identifies the problem and presents recommendations for nine alternative solutions. Depending on the type and effectiveness of the recommended system, the initial installation costs are estimated to range from 4 to 8 million dinars while the annual operating costs may require an expenditure from 0.6 to 1.3 million dinars.

e. Current Status: The GOT, in addition to the Oswald survey, contracted with other foreign consultants for similar services and their final reports and recommendations were then presented to IBRD for review and recommendation of the most suitable system. It is expected that IBRD's recommendation will be received before the end of 1973 and based

on its final selection of the system, the GOT will immediately seek the necessary construction funds. The modernized and expanded sewer system in Tunis is tentatively scheduled to be operational by the end of 1975 and its capacity will be sufficient for the increasing demand up to 1980.

Based on an overall review of the conditions of the Tunisian sanitary systems, it must be said that considerable effort, expense and time will be required to bring it within a reasonable range of acceptable health, sanitary and environmental standards. It was noticed that even Sfax, the second largest city of Tunisia, although having an apparently effective sewage collection system, does not have any treatment facility and raw sewage is being discharged into the sea.

The GOT, being aware of the overall sanitary problem, is planning the necessary improvements. The expenses, complications, technical capacity, and possibly other priorities may, however, make it a slow process, while the conditions will increasingly continue to represent an adverse impact on the environment.

f. The Lake of Tunis: The Lake of Tunis receives the bulk of the discharge from the current Tunis sewage disposal system. A relatively shallow body of water, with an average depth of only one meter, the lake is divided by a dredged ship channel into north and south sections. Although connected with the Bay of Tunis and the Mediterranean Sea, there is a very little tidal flushing to carry the wastes to sea or to provide sufficient oxygen to prevent putrefaction of the wastes.

Due to the excessive fertilization, the growth of vegetation has become so intense that it further restricts the circulation, while the tidal force is not sufficient to effect rapid displacement.

Because of its shallow depth, the lake is highly eutropic and is in the process of rapidly filling up with carbonaceous material. It is estimated that the deposition is occurring at a rate of one centimeter per year and it can, therefore, be predicted that, if the present conditions should remain, the lake will cease to exist within the next 100 years.

A strong odor from the lake water is being experienced in Tunis during the summer months, primarily due to the absence of the necessary environmental conditions for methane fermentation to dissipate the carbon.

Aside from health and aesthetic factors, considerable financial losses to the GOT can be attributed to the present conditions in the Lake of Tunis. Destructive corrosion of materials and surfaces due to hydrogen sulfide, fish losses, which were estimated at 80 tons in 1971, due to anoxic waters, and losses to Tunis tourist trade can be reasonably estimated at approximately 300,000 dinars per year. Without remedial action, these losses will increase in the future. Furthermore, additional losses of approximately 100,000 dinars per year can be attributed to low reclamation of the produced waste waters. Only approximately 3 million cubic meters, out of the estimated 25 million cubic meters, of waste water is being reclaimed by irrigation.

Regardless of the financial losses, the adverse impact on the environment and the serious health hazard generated by the conditions in the Lake of Tunis must be the primary motives for the much needed improvement.

Realizing the situation and searching for an effective improvement, the Ministry of Agriculture of the GOT authorized a detailed survey and evaluation of the conditions in the Lake of Tunis. The findings and recommendations contained in the survey report, prepared by Professor Sven Bjork of Lund University, Sweden, are currently under GOT review. It is hoped that the findings will provide guidelines for the restoration of the Lake of Tunis.

Preliminary work on the restoration of the lake has already been authorized and cleaning of the overgrowth and pumping of the accumulated solids will be initiated shortly. Final decision as to the type and extent of the restoration work will, however, be based on the type of planned improvements of the Tunis sewer system selected.

6. Other Utilities:

a. Potable Water Supply Distribution: The supply and main distribution systems of potable water in Tunisia is the responsibility of the Société Nationale d'Exploitation et de Distribution des Eaux (SONEDE).

Generally, the available data indicate that there is a sufficient supply of potable water in all major populated areas. Moreover, the potable water supply for the city of Tunis has practically been doubled by the completion of the Gdir El Goulla Dam and treatment plant.

The dam and the treatment plant have been completed under the sponsorship of the Ministry of Agriculture and financially assisted by USAID loan No. 664-H-012 and 012A of February 15, 1963 and December 18, 1968.

Since further extensions to the present water collection and distribution system are under GOT consideration, it appears that no problems with efficient and satisfactory water supply in Tunis and other areas of concentration should be expected.

These findings, however, should be related only to the housing stock with presently installed water supply and to the proposed housing development plan. Currently, although practically all of the housing stock has some means of water supply, only 29% of the available units have installed running water. Individual or communal wells or streams provide the water supply to the balance of the stock.

b. Electric Power Supply: The generation and distribution of electric power is the responsibility of the Société Tunisienne d'Electricité et du Gaz (STEG).

The currently generated supply (mostly hydro-electric plants) more than satisfies the demand in Tunis, as well as in other localities, while additional generating sources are planned by the GOT for the future.

Power is being delivered to consumers at 110-120 V - 50 cycles or 210-220 V - 50 cycles, depending on the area.

Electrification of Tunisia is, however, limited to the urban areas and the relatively newer housing units. There are still 664,000 units, or 75% of the housing stock, without electric power supply.

c. Highways, Roads, and Streets: With the exception of minor streets serving the circulation within the community, the roads and highways are under the responsibility of the Ministry of Public Works and Housing, the Gouvernorats, and the Municipalities.

The present regulations set the following minimum requirements:

Major Streets	30 meters right of way
	7 meters average pavement
	4 meters sidewalks
Marginal access streets:	20 meters right of way
	5 meters pavement
Minor or dead-end streets:	10 meters right of way
	6 meters pavement
	4 meters sidewalks

Bituminum asphalt paving is common throughout the country. Highways and major traffic arteries are individually designed to accommodate the present and projected traffic loads.

A sizeable GOT highway improvement program is currently in progress.

7. Local Property Taxes: Five different taxes are levied on real estate in Tunisia.

All real estate is subject to taxes for municipal services, such as garbage collection, etc., and to taxes for sewers. the former is known as the "taxe d'entretien" and the latter as the

"taxe d'assainissement." For buildings constructed before 1944, these taxes amount to 20% of the actual or imputed rental value of the property; buildings constructed after 1944 are taxed at 10%.

All real estate over 15 years old is assessed a basic property tax, with those buildings constructed before 1944 taxed at 15% and those constructed after 1944 at 10%. Buildings less than 15 years old are exempt from this tax.

All buildings are also subject to a tax of 4% of the actual or imputed rental value for transfer to the Fonds Nationale pour l'Amelioration de l'Habitat (FNAH). As discussed in Section B, these revenues are used to make home improvement loans.

Finally, buildings subject to rent control, which is limited to those constructed prior to 1944, are assessed a "taxe de compensation" of 5% to compensate for the fact that rental values of structures under rent control do not increase through time.

In summary, buildings constructed before 1944 pay 44% of their actual or imputed rental value as property taxes; buildings constructed since 1944, but which are over 15 years old, pay 24%; and buildings less than 15 years old pay 14%.

H. SOCIAL SERVICES

The level of community socialization in popular neighborhoods is relatively high. Many family activities, of course, take place within the courtyard walls, but the market place, the sidewalk cafe, and the common water source also offer ample opportunity for socialization for both sexes.

The Societe Nationale Immobiliere Tunisienne (SNIT) reports that families get to know each other very rapidly in new housing developments. In one city, Sfax, the eight families who will occupy an apartment building are acquainted with each other before the units are assigned and the assignments are made by groups of eight.

Families with numerous children present some problems in terms of maintenance of the common areas. SNIT is currently considering the promotion of a system of social action committees for its row-house developments. In apartment complexes under SNIT management, homeowners associations are already established to assure the maintenance of common areas.

Social services are provided by "social assistants" from the municipalities and from the Ministry of Social Affairs. Assistants from the Ministry of Social Affairs are particularly active in family planning, but their guidance is also sought in many other areas of family life.

Neither can the role of the Secretary of the neighborhood cell of the Destourian Socialist Party be overemphasized.

Housing cooperatives have provided a sense of cohesion to neighborhoods in which they function. Moreover, housing cooperatives have a rather long history in Tunisia, dating back to 1921, when legislation authorized the organization of cooperatives along the lines of the French Habitation Bon Marché (HBM). Under this form of organization, members purchased shares and each year, the cooperative constructed a certain number of units financed by advances from the state or from the Caisse Mutuelle de Crédit Immobilier de Tunisie (CMCIT) -- the Mutual Housing Bank of Tunisia. Each housing development was covered by a simple mortgage with a term of 20 years. Under a state subsidy program, members paid a very modest 1.5% interest. CMCIT also kept the books of each association.

A mutual life insurance company held life insurance policies on all members of the cooperative. If a member died, the insurance continued to make the monthly payments on the mortgage.

During some 30 years of operation, the HBM's constructed about 4000-5000 housing units and when SNIT absorbed these units in 1966, about 30 HBM societies remained active. Their membership, however, was 80% European and the construction program of the HBM concentrated on relatively costly three to five-room individual units on 400 square meter lots.

After Tunisian Independence, a similar type of housing cooperative was organized to construct inexpensive housing units. The housing units constructed by these new cooperatives, Societes Coopératives Ouvrières de Logement (SCOL), cost about 1,300 dinars and were financed

with the aid of 30-year, 2% loans granted by the state. Eighty-seven SCOL's were organized and during the ten years of their independent existence, they sponsored the construction of some 2,700 housing units.

When the GOT decided in 1966 to centralize and standardize its shelter sector activities, the lease-purchase portfolios of the HBM's, SCOL's, and the CMCIT, as well as the administrative and accounting functions of CMCIT, were transferred to SNIT.

Juridically, the HBM's and the SCOL's are different, the former being established under French law and the latter under Tunisian law. Tunisian law now permits the organization of housing cooperatives under the regular provisions of the business law regulating commercial and business activity under the general supervision of the Ministry of National Economy.

Housing cooperatives in Tunisia have consistently maintained their voluntary character and, thus, never fell into opprobrium, as did the agricultural cooperatives into which farmers were forced during the 1960's.

The existing HBM's and SCOL's remain active in various aspects of management, but, in the absence of funds, they do not sponsor new housing projects.

Housing cooperatives continue to be popular in Tunisia and have been organized by the employees of large companies and of government agencies. Moreover, under the 1973-76 development plan, housing cooperatives are expected to assume a greater role in the GOT shelter sector strategy than in the recent past inasmuch as financing will be made available,

to cooperatives and other housing societies under the proposed law for the Promotion of Real Estate Companies.

I. ECONOMIC CONSIDERATIONS

1. Introduction: This section of the survey provides a general overview of the growth and structural change of the Tunisian economy over the recent past and comments upon the general aspects of the 1973-76 development plan. Detailed discussion and analysis of the balance of payments and Tunisia's debt-service capacity are also provided with a view toward determining the ability of the economy to carry out its planned shelter sector activities and to repay external borrowing which might be undertaken to finance shelter sector activities.

2. Recent Economic Performance: Over the period 1968-1972, the Tunisian economy grew at a truly phenomenal rate, as Table II indicates. Per capita income in 1966 dinars increased from 120.70 in 1968 to 160.53 in 1972, which, at the 1970 exchange rate of .520 dinars per dollar, translates into increase of slightly more than 75 dollars per capita over a five-year period. That is, using the rate of exchange prior to the U. S. devaluation, real per capita gross domestic product increased from 232.11 dollars in 1968 to 308.70 dollars in 1972.

Moreover, it should be emphasized that this growth occurred without significant inflationary pressure. During the period, the highest rate of price inflation was 6.3% in 1971 when the gross domestic product, in 1966 dinars, rose by 9.1%. The lowest rate of inflation was in 1972, at .8%, when real gross domestic product rose by 17.6%.

TABLE II

GROSS DOMESTIC PRODUCT

	<u>Millions of Current Dinars</u>	<u>Millions of 1966 Dinars</u>	<u>1966 Dinars Per Capita</u>	<u>GDP Deflator</u>
1968	624.3	594.8	120.70	104.96
1969	678.2	625.0	124.33	108.51
1970	745.9	667.9	130.30	111.83
1971	866.6	729.0	139.31	118.88
1972	1,028.0	857.4	160.53	119.90

	<u>Rate of Growth of GDP in Cur- rent Dinars</u>	<u>Rate of Growth of GDP in 1966 Dinars</u>	<u>Rate of Growth of 1966 GDP Per Capita</u>	<u>Rate of Change of GDP Deflator</u>
1968-69	8.6%	5.1%	3.0%	3.3%
1969-70	10.1%	6.9%	4.8%	3.1%
1970-71	16.0%	9.1%	6.9%	6.3%
1971-72	18.6%	17.6%	15.2%	.8%

in general, the expansion of the economy has proceeded along a broad front, with most sectors contributing to over-all growth. Moreover, no single sector dominates the Tunisian economy. Although Agriculture and Fishing generated the largest percentage of real gross domestic product at factor cost, with an average over 1968-72 of 17.8%, Manufacturing generated an average of 9.6% and Construction and Public Works accounted, on the average, for 8.0%. Within the Manufacturing sector, the construction materials industry, including the manufacture of ceramics and glass, accounted for less than 10%, on the average, of Manufacturing output over the 1968-72 period.

3. Future Prospects: The 1973-76 Development Plan envisions an expansion of 31.5% in real gross domestic product over the four-year period and an increase in real per capita gross domestic product to 195 dinars -- \$375 at the 1970 exchange rate. The target rate of growth of real GDP per capita over the four-year period is 21.5%.

As shown in Table I2, the plan contemplates no repetition of the phenomenal rates of growth experienced in 1971 and 1972. Indeed, the 1972-73 growth rate is expected to be only 2.9% in real terms. Stronger growth is expected in 1974 (10.3%). The plan then contemplates stabilizing the growth rate at 7.6% and 7.7% for 1975 and 1976, respectively.

The target rate of price inflation implied by the plan is essentially zero, but it should be understood that the Tunisians plan in real terms and do not yet prepare a plan for the monetary, or financial, sector. It may nevertheless be inferred from past behavior that the Tunisian government is unwilling to accept more

TABLE 12

PLAN PROJECTIONS OF GROSS DOMESTIC PRODUCT

	<u>Millions of Current Dinars</u>	<u>Millions of 1966 Dinars</u>	<u>1966 Dinars Per Capita</u>	<u>GDP Deflator</u>
1972	1,028.0	857.4	160.53	119.90
1973	1,065.7	882.1	161.88	120.81
1974	1,175.9	973.2	175.13	120.82
1975	1,276.7	1,047.1	184.83	121.08
1976	1,365.9	1,127.7	195.00	121.12
	<u>Rate of Growth of GDP in Current Dinars</u>	<u>Rate of Growth of GDP in 1966 Dinars</u>	<u>Rate of Growth of Real GDP Per Capita</u>	<u>Rate of Change of GDP Deflator</u>
1972-73	3.7%	2.9%	.8%	.8%
1973-74	10.3%	10.3%	8.2%	-
1974-75	7.8%	7.6%	5.5%	.2%
1975-76	7.7%	7.7%	5.5%	-

than very modest rates of inflation and that the implication of a zero target rate of inflation is probably consistent with Tunisian thinking on the subject.

Given that the plan contemplates an increase in the relative share of the Construction sector from 8.0% to 9.4%, and that the domestic manufacture of construction materials will, according to the plan, expand less than proportionately, it can be inferred that the import component of construction may be higher during the 1973-76 period than in the past.

This inference is consistent with the plan's projection of the gap between exports and imports of goods and services. As indicated in Table I3 which presents gross domestic product in current dinars by expenditure, the Tunisian foreign trade deficit is projected to rise from 15.1 million dinars in 1972 to 67.0 million dinars in 1976.

Moreover, it would appear from the data presented in Table I4 that the principal source of the rising trade deficit is the targeted increase in the rate of non-residential fixed capital formation. Exports relative to gross domestic product are expected to rise modestly while consumption relative to gross domestic product is expected to decline slightly. Furthermore, note that, although investment in residential construction is programmed to increase substantially in absolute terms, it will not increase significantly relative to gross domestic product.

TABLE 13
 GROSS DOMESTIC PRODUCT BY EXPENDITURE
 (1968-72 ACTUAL; 1973-76 PLAN PROJECTIONS)
 (Millions of Dinars)

	<u>Consumption</u>		<u>Gross Fixed Capital Formation</u>		<u>Changes in Stocks</u>	<u>Exports</u>	<u>Imports</u>
	<u>Private</u>	<u>Public</u>	<u>Non Resi- dential</u>	<u>Resi- dential</u>			
1968	396.0	109.3	112.8	15.9	9.1	133.5	152.3
1969	443.4	118.1	121.3	20.3	5.5	149.9	180.3
1970	499.1	130.8	123.8	22.8	4.8	166.2	200.2
1971	563.7	137.9	151.0	22.1	9.4	212.4	230.2
1972	649.7	156.9	180.8	27.6	29.1	268.9	284.0
1973	698.1	170.9	224.5	32.6	- 4.5	275.0	331.0
1974	751.7	181.6	263.9	37.7	9.4	307.5	375.5
1975	814.4	194.8	270.4	38.7	18.5	346.5	411.0
1976	875.1	208.9	292.9	37.5	19.6	381.0	448.0

TABLE I4

EXPENDITURES RELATIVE TO GROSS DOMESTIC PRODUCT
 (1968-72 ACTUAL; 1973-76 PLAN PROJECTIONS)
 (Percent, Based on Current Dinars)

	<u>Consumption</u>	<u>Gross Fixed Capital Formation</u>		<u>Exports</u>	<u>Imports</u>
		<u>Non Res.</u>	<u>Resident</u>		
1968	80.9%	18.1%	2.5%	21.4%	24.4%
1969	82.8	17.9	3.0	22.1	26.6
1970	84.3	16.6	3.0	22.2	26.8
1971	81.0	17.4	2.6	24.5	26.6
1972	78.5	17.6	2.6	26.2	27.6
1973	81.5	21.1	3.1	25.8	31.0
1974	79.4	22.4	3.2	26.1	31.9
1975	79.6	21.3	2.8	27.3	32.4
1976	79.4	21.4	2.7	27.9	32.8

As shown in Table 15 imports of capital goods are targeted to increase substantially over the 1973-76 period relative to the preceding five years. In fact, between 1972 and 1976, capital goods imports are targeted to increase by 71.7%, and to account for slightly more than 25% of all imports of goods and services by 1976.

Moreover, the import component of non-residential fixed capital formation is planned to increase from an average of 30.9% over the 1968-72 period to an average of 38.3% over the 1973-76 period.

The import component of residential construction is discussed in detail in another section of the report, but it is perhaps worth noting here that imports of construction materials represent only about 10 - 15% of investment in residential construction.

Therefore, the picture which emerges with respect to the recent economic history of Tunisia and the 1973-76 plan is that the sharp planned increase in imports of goods and services -- about 58% between 1972 and 1976 -- is due primarily to a targeted increase in the tempo of nonresidential fixed capital formation and that the planned increase in residential investment does not contribute materially to the projected deficit in the trade account.

It was noted above that, although the trade deficit had narrowed substantially between 1968 and 1972, largely as a result of growth in export earnings rather than a decline in imports, the plan projects a relatively modest increase in export earnings over 1973-76. Between 1968 and 1972, exports increased 101.4%, but the plan projects an increase of only 41.7% in exports between 1972 and 1976.

TABLE 15

COMPOSITION OF IMPORTS
(Millions of Dinars)

	<u>Total Imports</u>	<u>Consumer Goods</u>	<u>Food Imports</u>	<u>Intermediate Goods</u>	<u>Fuels</u>	<u>Capital Goods</u>	<u>Services & Other Imports</u>
1968	152.3	17.6	23.5	43.7	1.8	30.4	35.3
1969	180.3	21.2	30.0	52.4	5.7	30.5	40.5
1970	200.2	21.3	34.5	59.3	6.7	38.6	39.8
1971	230.2	25.2	37.4	57.5	7.0	52.9	50.2
1972	284.0	32.9	42.0	66.3	15.2	65.8	61.8
1973	331.0	37.0	47.0	79.0	16.0	85.0	67.0
1974	375.5	41.0	51.5	93.0	16.5	100.0	73.5
1975	411.0	45.0	56.5	106.5	17.0	105.0	81.0
1976	448.0	50.0	62.0	117.0	18.0	113.0	88.0

(RELATIVE SHARES: PERCENT)

1968	11.6%	15.4%	28.7%	1.2%	20.0%
1969	11.8	16.6	29.1	3.2	16.9
1970	10.6	17.2	29.6	3.3	19.3
1971	10.9	16.2	25.0	3.0	23.0
1972	11.6	14.8	23.3	5.4	23.2
1973	11.2	14.1	23.9	4.8	25.7
1974	10.9	13.7	24.8	4.4	26.6
1975	10.9	13.7	25.9	4.1	25.5
1976	11.2	13.8	26.1	4.0	25.2

As shown in Table I6, an apparent reason for this projection is the expected decline in exports of processed agriculture exports, particularly olive oil, which constitutes by far the greatest proportion of this category of exports. These projections are probably conservative, in that while the plan projects earnings from the export of olive oil of 17.5 million dinars for all of 1973, exports for the first three months of 1973 were 8.88 million dinars, which is only slightly below the 1972 first quarter earnings of 10.28 million dinars. Moreover, in late September, 1973, the estimates of olive oil exports for 1973 were revised upward to about 26 million dinars. But, at the same time, earnings from tourism were revised downward, based in the first six months of 1973, to approximately their 1972 level. There are, however, some indications that the pattern of tourist visits is changing, with relatively more tourism during the winter months than in the past and relatively less in the summer months than before. Consequently, the export earnings projections for these two categories are felt to be on the conservative side.

The data shown in Table I6 also reveal that the planned investment in the textile industry noted above is expected to have a strong export component. In the export category of finished and semi-finished products, the export of textile and leather products accounted for 16.6% of earnings, on the average, over the 1969-72 period; by 1976, they are planned to account for 49.9% and to average 43.2% of the category over 1973-76.

TABLE 16

COMPOSITION OF EXPORTS
(Millions of Dinars)

	<u>Total Exports</u>	<u>Basic Agri-cultural Exports</u>	<u>Processed Agri-cultural Exports</u>	<u>Mineral Exports</u>	<u>Crude & Refined Petroleum</u>	<u>Finished & Semi-Finished Products</u>	<u>Tourism</u>	<u>Other</u>
1968	133.5							
1969	149.9	9.5	21.7	11.5	22.7	22.6	26.1	35.8
1970	166.2	11.2	18.9	15.7	26.1	24.6	31.6	38.1
1971	212.4	10.9	32.6	16.4	31.9	24.6	53.8	42.2
1972	268.9	11.2	58.3	15.3	41.3	30.2	68.0	44.6
1973	275.0	11.9	26.4	15.4	48.5	46.4	79.5	46.9
1974	307.5	12.5	26.8	14.0	55.7	57.8	91.5	49.2
1975	346.5	13.8	32.5	11.4	54.0	79.5	103.0	52.3
1976	381.0	15.1	38.2	9.8	51.5	96.8	115.0	54.6

(RELATIVE SHARES: PERCENT)

1968								
1969		6.3%	14.5%	7.7%	15.1%	15.1%	17.4%	
1970		6.7	11.4	9.4	15.7	14.8	19.0	
1971		5.1	15.3	7.7	15.0	11.6	25.3	
1972		4.2	21.7	5.7	15.4	11.2	25.3	
1973		4.3	9.6	5.6	17.6	16.9	28.9	
1974		4.1	8.7	4.6	18.1	18.8	29.8	
1975		4.0	9.4	3.3	15.6	22.9	29.7	
1976		4.0	10.0	2.6	13.5	25.4	30.2	

These projections may prove to be optimistic, but given the past performance of the Tunisian economy and the high rate of growth targeted for 1973-76, some underachievement of targets would still leave a very healthy balance.

4. Balance of Payments and External Debt Consideration: Given the plan projections, which must be deemed ambitious, though not unrealistic, a substantial foreign financial inflow has been projected. The complete balance of payments picture is given below in Table I7

Note that the gross foreign financial inflow over the 1968-72 period averaged 84.9 million dinars per year and the plan projections for 1973-76 call for an annual average inflow of 128.9 million dinars or some 322 million dollars per year at the September, 1973 exchange rate. The total gross foreign financial inflow called for by the four years of the 1973-76 plan is 515.5 million dinars or 1.289 billion dollars at the September, 1973 exchange rate. Even on a net basis, after deducting amortization of existing and programmed debt, the projected foreign financial inflow will be substantial -- 379.5 million dinars, or 949 million dollars at the September, 1973 exchange rate.

The debt service, including both interest and amortization of public and private sector external debt, is nevertheless projected to decline as a percentage of export earnings. Service on the public and private foreign debt, which stood at 25.3% of export earnings in 1969, declined to 17.8% in 1972 and is projected to decline steadily through 1973-76 to 14.7% of projected export earnings.

TABLE I7
BALANCE OF PAYMENTS
(Millions of Dinars)

	<u>Exports of Goods & Services</u>		<u>Imports of Goods & Services</u>	<u>Balance of Trade Account</u>	<u>Net Factor Payments</u>	<u>Net Foreign Transfers</u>	<u>Balance on Current Account</u>	
1968	133.5		152.3	-18.8	-25.1	5.9	-38.0	
1969	149.9		180.3	-30.4	-23.9	4.1	-50.2	
1970	166.2		200.2	-34.0	-20.4	5.3	-49.2	
1971	212.4		230.2	-17.8	-11.9	8.5	-21.2	
1972	268.9		284.0	-15.1	-12.5	4.6	-23.0	
1973	275.0		331.0	-56.0	-13.5	4.5	-65.0	
1974	307.5		375.5	-68.0	-13.5	4.5	-77.0	
1975	346.5		411.0	-64.5	-13.0	4.5	-73.0	
1976	381.0		448.0	-67.0	-12.5	4.5	-75.0	
	<u>Grants</u>	<u>Loans</u>	<u>Direct Invest.</u>	<u>Net Short Term</u>	<u>Other Credit</u>	<u>Public & Private Repayments</u>	<u>SDR's</u>	<u>Change in Monetary Reserves</u>
1968	15.1	28.8	10.7	-5.7	23.6	25.4	-	9.1
1969	22.7	34.6	10.5	.4	18.5	26.7	-	9.8
1970	22.4	31.4	10.3	-1.9	19.7	25.7	3.1	10.1
1971	18.4	44.7	12.5	-3.8	20.1	25.5	2.0	47.2
1972	17.2	44.9	20.1	-5.8	15.1	35.0	2.7	36.2
1973	22.5	57.2	24.9	-	14.9	31.0	-	23.5
1974	19.2	67.0	20.3	-	22.5	32.0	-	20.0
1975	18.4	74.2	19.9	-	15.0	35.0	-	19.5
1976	18.4	88.2	21.7	-	11.2	38.0	-	28.5

A detailed breakdown of actual and projected foreign debt and debt service is given in Table I8.

Both Table I7 and Table I8 indicate that the foreign debt, insofar as it is currently projected, is well structured. Substantial inputs of short-term debt have been avoided and, indeed, there was net repayment of short-term debt over the 1968-72 period. Moreover, the existing structure appears to provide an orderly repayment schedule over the 1973-76 period.

Some question remains, however, as to whether or not Tunisia might be well-advised to reduce its foreign financing requirements by accepting a somewhat lower level of international monetary reserves.

Table I9 contains data on the actual and planned levels of international monetary reserves, on the bases of official reserves and net liquidity, relative to annual imports. These data reveal that the plan contemplates a level of international monetary reserves in 1976 in excess of 40% of annual imports. That is, planned imports, both essential and nonessential, could be maintained for 4 to 5 months by drawing down international monetary reserves, assuming that export earnings and net foreign financial inflows summed to zero.

Tunisian export earnings, however, are based significantly on agricultural commodities, the production of which is susceptible to the vagaries of the weather. Moreover, the crop cycle of some of these commodities may be as long as a year. Therefore, it is perhaps understandable for Tunisia to set its target level of international monetary reserves at approximately 40% of annual imports. It must nevertheless be noted that such a level of contingency reserves probably contemplates calamity rather than the normally anticipated

TABLE 18

EXTERNAL DEBT AND EXTERNAL DEBT SERVICE
(Millions of Dinars)

	<u>Debt</u>	<u>Total</u>		<u>Government</u>			<u>Enterprises</u>		
		<u>Amort.</u>	<u>Int.</u>	<u>Debt</u>	<u>Amort.</u>	<u>Int.</u>	<u>Debt</u>	<u>Amort.</u>	<u>Int.</u>
1969	296.7	26.7	11.2	176.0	9.1	4.1	120.7	17.6	7.1
1970	322.1	25.7	11.0	193.0	8.4	5.4	129.1	17.3	5.6
1971	361.4	25.5	12.0	207.1	12.0	7.3	154.3	13.5	5.7
1972	386.4	35.0	13.0	222.2	19.8	7.6	164.2	15.2	5.4
1973	427.6	31.0	14.0	241.8	13.7	7.6	185.8	17.3	6.4
1974	485.1	32.0	16.0	264.7	14.0	7.5	220.4	18.0	7.5
1975	539.3	35.0	16.5	287.4	15.5	8.5	251.9	19.5	8.0
1976	600.7	38.0	18.0	311.1	17.0	9.5	289.7	21.0	8.5

TABLE 19

INTERNATIONAL MONETARY RESERVES RELATIVE TO ANNUAL IMPORTS
(Millions of Dinars)

	(1) <u>Official Reserves</u>	(2) <u>Net Liquidity Reserves</u>	(3) <u>Imports</u>	<u>(1)/(3)</u>	<u>(2)/(3)</u>
1968	24.8	- 11.9	152.3	16.3%	- 7.8%
1969	25.9	- 2.1	180.3	14.4%	- 1.2%
1970	37.2	8.0	200.2	18.6%	4.0%
1971	81.7	55.2	230.2	35.5%	24.0%
1972	119.8	92.9	284.0	42.2	32.7%
1973	143.3	116.9	331.0	43.3%	35.3%
1974	163.3	137.3	375.5	43.5%	36.6%
1975	182.8	156.8	411.0	44.5%	38.2%
1976	209.3	183.3	448.0	46.7%	40.9%

year-to-year fluctuations in export earnings.

Further insight into this question can be obtained by determining the economy's foreign debt service surplus, or that amount of annual loan amortization, in addition to that to which the country is already committed or has programmed, which could be paid without violating the target level of international monetary reserves. The procedure for determining the foreign debt service surplus, which is described below, yields a somewhat more comprehensive measure of a country's foreign exchange position than either the conventional debt service ratio or the ratio of international monetary reserves to annual imports.

First, the accounting identity for the change in international monetary reserves is specified:

$$\Delta MR = EX + TXFF - IM - NFS + FFI - FFO,$$

where ΔMR is the change in the level of official international monetary reserves, EX is exports of goods and services, $TXFF$ is net foreign transfers, IM is imports of goods and services, NFS is net factor payments, including interest on foreign debt, FFI is the gross foreign financial inflow, and FFO is the gross foreign financial outflow, which consists of foreign debt amortization. Next, a demand function for international monetary reserves is specified. This function relates the current level of international monetary reserves to annual imports, with the parameter of the function determined more or less arbitrarily on the basis of a subjective decision about the level of contingency reserves which the country

feels is "prudent." For the Tunisian case, it could be assumed that a level of international monetary reserves equal to three months' imports, or 25%, would be sufficient for these purposes. Therefore the demand function for international monetary reserves is taken as:

$$MR^* = .25IM$$

Next, given that $\Delta MR = MR - MR_{-1}$, where MR_{-1} is the level of MR in the previous period, the accounting identity of ΔMR is rearranged, with MR being replaced by MR^* , and the resulting equation solved for the maximum amount of foreign financial outflow, FFO^* , which the country could withstand, given the values of the other variables in the equation, while exactly satisfying its demand for international monetary reserves. That is:

$$FFO^* = FFI - MR^* + MR_{-1} + EX + TXFF - IM - NFS$$

Then, to determine the foreign debt service surplus, $FDSS$, the actual or programmed foreign financial outflow, FFO , is subtracted from FFO^* :

$$FDSS = FFO^* - FFO$$

This analysis can be used in at least three ways: (1) to determine the extent to which underachievement of the relevant plan targets will allow the country to continue to service its external debt without impairing its international monetary reserve position, (2) to determine the extent to which foreign financial inflow requirements might be scaled down, given the approximate achievement

of the relevant plan targets, and (3) to determine the impact of new foreign lending, not already included in the analysis, on the country's reserve position, again given the achievement of the relevant plan targets.

Table 110 contains the results of this analysis applied to Tunisia for the three uses indicated above. In all cases, MR* has been assumed equal to 25% of annual imports.

Note that the revised foreign financial inflow requirements, FFI*, allows for some underachievement of the relevant plan targets, inasmuch as net factor payments, NFS, and external debt amortization, FFO, have not been revised in a manner consistent with the lowered foreign financial inflow requirements.

In the case of the addition of a loan not already included in the analysis, it was assumed that the loan would be a 25 year loan in the amount of \$20 million, at 10% interest, principal and interest payable in equal annual installments. It was further assumed that this loan would be fully disbursed in 1973 and that repayment would begin in 1974. For purposes of the analysis, the loan in dollars, as well as the debt service payable in dollars, were converted to dinars at the September, 1973, exchange rate of .400 dinars to the dollar.

Moreover, for the sake of computational convenience, all debt service was added to FFO, rather than divided appropriately between FFO and NFS.

TABLE I 10

FOREIGN DEBT SERVICE ANALYSIS
(Millions of Dinars)

	<u>Foreign Debt Service Surplus</u>			<u>Revised Foreign Financial Inflow Requirements</u>			<u>Foreign Debt Service Surplus After Addition of \$20 Million Loan</u>		
	<u>FDSS</u>	<u>= FFO*</u>	<u>- FFO</u>	<u>FFI*</u>	<u>= FFI</u>	<u>- FDSS</u>	<u>FDSS</u>	<u>= FFO*</u>	<u>- FFO</u>
1968	- 2.3	23.1	25.4	74.8	72.5	- 2.3			
1969	-10.5	16.2	26.7	97.2	86.7	-10.5			
1970	-13.9	11.8	25.7	98.9	85.0	-13.9			
1971	26.8	52.3	25.5	67.1	93.9	26.8			
1972	46.9	81.9	35.0	47.3	94.2	46.9			
1973	60.5	91.5	31.0	69.0	119.5	60.5	68.5	99.5	31.0
1974	69.4	101.4	32.0	69.8	129.0	69.4	68.5	101.4	32.9
1975	80.0	115.0	35.0	47.5	127.5	80.0	79.1	115.0	35.9
1976	97.3	135.3	38.0	42.2	139.5	97.3	96.4	135.3	38.9

The results of the analysis reveal that Tunisia had a comfortable foreign debt service surplus in 1971 and 1972, although the previous three years were ones of "deficient" international monetary reserves. According to the 1973-76 development plan, the foreign debt service surplus is expected to grow substantially, with the 1976 surplus estimated at slightly more than twice that realized in 1972.

Given a demand for international monetary reserves equal to 25% of annual imports, it follows that foreign financial inflow requirements could be reduced significantly. Indeed, the revised foreign financial inflow requirement for 1976 is only 30% of the planned foreign financial inflow for that year.

The analysis of additional debt-bearing capacity over the 1973-76 period reveals that a \$20 million loan would scarcely alter any of the preceding conclusions. Moreover, it makes very little difference whether the interest rate is set at 10% or at, say, 8%. In the 10% case, annual principal and interest on a 25-year, \$20 million loan would amount to 872,000 dinars, while at 8%, the annual payment would be 740,000 dinars.

Since the 1973-76 development plan has already programmed a 4.7 million dinar HG loan, the use of an additional \$20 million loan in the preceding analysis results in conclusions based on a total input of HG funds of slightly more than \$30 million over the four-year period.

On this basis, the 4.7 million dinar loan constitutes only nine-tenths of one percent of the total programmed foreign financial

inflow. Thus, even a \$30 million HG loan, much less the programmed \$11.75 million loan, disbursed over 1973-76 would not materially affect either the Tunisian balance of payments or its debt service position.

Even in the more restricted sense of impact on the shelter sector, a \$30 million HG loan would have a significant, though not a massive, effect. At the September, 1973, exchange rate, \$30 million converts to 12.0 million dinars. Yet planned housing investment for 1973-76 amounts to 144.5 million dinars. Thus, a \$30 million HG loan would account for only 8.3% of total programmed investment in residential construction over 1973-76.

J. FOREIGN ASSISTANCE: PAST AND PROJECTED

Until recently foreign assistance to the Tunisian shelter sector has been primarily in the form of technical assistance. The Tunisian subsidiary of a major private French consulting firm, SCET, maintains a 150-person mission, including secretarial and clerical personnel, in Tunisia. This firm is involved in rendering technical assistance in construction, including housing, agriculture, and tourism. Of the staff of 150 persons, 30 are architects and engineers. The U. S. Peace Corps and the Bulgarian government have also provided architects to render technical assistance to the Ministry of Public Works and Housing. Furthermore, the Swedish government is currently financing an experimental program, which is expected to continue, in conjunction with the Tunisian government's Center for Research in construction.

These programs have been useful in helping the GOT carry out programs in accordance with conventional techniques, but their innovative impact has not been substantial, nor, for the most part, was it so intended.

In response to the 1969 flood damage, about 560,000 dinars of grant assistance was provided by the Belgian, Dutch, Swedish, and Norwegian governments. These funds were utilized to construct approximately 1,200 housing units.

The GOT is currently seeking 5 million dinars in grant assistance to build 10,000 one-room rural housing units to replace an equal number of gourbis destroyed in the 1973 floods.

Other than technical assistance and disaster relief, the most significant foreign financial assistance to the shelter sector has come through the HG program. Two projects have been funded with this assistance: the Carnoy project, which involved a \$5 million loan for 565 housing units, and the Ras Tabia project, which is currently being constructed with \$10 million financing for 5,100 units.

The Carnoy project, which the GOT considered to be a private sector operation, represented less than 2% of the 29,800 housing units constructed under the 1965-68 development plan and about 4% of the 63 million dinars invested by the private sector in housing during this period. The first phase of the Ras Tabia project represents 6% of the housing units and 5% of the GOT investment in housing for the 1969-72 development plan.

The GOT is currently seeking additional financial assistance for housing investment, at present primarily on concessional terms. The Societe Tunisienne de Banque (STB) has contracted with the Libyan government for a 1.5 million dinar loan, the conditions of which were not available, and a Swedish concessional loan for 1.5 million dinars, to be directed toward highly subsidized programs for the very lowest income groups, is under preliminary discussion. Additional assistance from the Libyan government is considered likely and the 1973-76 development plan includes a 4.7 million dinar HG loan. At the September, 1973 exchange rate, this HG loan would amount to 11.75 million dollars.

The 1973-76 development plan envisions a public sector investment of 62.5 million dinars in the shelter sector. As detailed below, only 45 million dinars of the resources for this investment have been

identified, leaving a balance of 17.5 million dinars to be obtained from foreign and/or domestic sources.

Thus, the data contained in Table J1 indicate that approximately 10% of the financing required for implementation of the 1973-76 shelter sector plan has already been identified as foreign assistance. Moreover, sources for 28% of the financing have not yet been identified. Should all of this additional financing be sought from external sources, the total foreign assistance component would amount to approximately 60 million dollars, or 38% of the total program.

TABLE J1

FINANCIAL RESOURCES FOR PUBLIC SECTOR HOUSING INVESTMENT, 1973-76
(Millions of Dinars)

<u>Source of Financing</u>	<u>Amount of Financing</u>
SNIT and Other Promoter Resources	14.70
GOT Contribution	7.25
Downpayments	<u>16.85</u>
SUB-TOTAL: Domestic Sources	38.80
Swedish Loan	1.50
HG Loan	<u>4.70</u>
SUB-TOTAL: Foreign Sources	6.20
TOTAL: ALL SOURCES	45.00
<u>Investment Planned:</u>	62.50
<u>Additional Financing to be Obtained:</u>	17.50

K. TECHNICAL ASSISTANCE AND PROJECT MONITORING

1. Background: During the first HG project in Tunisia, provision to the sponsor of most of the necessary services during the construction period was made possible by the presence in Tunis of the Regional Housing Office for Africa. This office was staffed by an AID contractor, the National League of Insured Savings Associations.

The sponsor of the current HG project, the Société Nationale Immobilière Tunisienne (SNIT), has a much greater capacity to carry out the program than the sponsor of the first project, primarily because of SNIT's experience. The problems which have been encountered on the current project, at Ras Tabia, have been of two types.

a. Construction Problems: The Ras Tabia project has been delayed by the normal problems which beset virtually all construction projects. SNIT has, however, contracted with an expatriate firm to handle construction coordination and supervision ("pilotage") and has expressed the desire for assistance in developing "pilotage" capability within Tunisia.

b. Monitoring Problems: Certain problems of monitoring, of communications, and of procedures have arisen because of SNIT's lack of familiarity with AID programs and procedures. At the present time, these problems are being resolved through TDY technical assistance. Improvements in this aspect of the program should occur through time as SNIT becomes more familiar

with AID procedures and requirements. Adaptation of certain of these requirements to Tunisian conditions would also facilitate improvement.

2. Technical Assistance: SNIT's interest in obtaining technical assistance in the area of project "pilotage" is valid, but it does not appear to be imperative in terms of the implementation of the present HG project or possible future HG projects. It could, however, be placed on the agenda for consideration by USAID/Tunisia in the context of participant training needs.

Indeed, there appear to be no purely technical assistance needs that must be met as a condition of successful implementation of current or future HG projects.

Although the GOT will implement a new contract savings program for housing finance, it appears to have available the necessary financial expertise to implement the program, particularly in view of the fact that the necessary experience appears to be related more to the French tradition of pre-saving and mortgage-backed bond issue than to the American tradition of financial intermediation characteristic of the savings and loan industry.

As investment in the shelter sector becomes an increasingly important component of AID participation in Tunisian development, training requirements which cannot be foreseen at this time will, however, manifest themselves. More USAID financial support than has been necessary in the past will, therefore, undoubtedly be required.

3. Project Monitoring: Some form of regular project monitoring does appear to be necessary, particularly in view of the magnitude of the existing and proposed programs. Such monitoring should be provided by a senior level technician experienced in housing, familiar with the HG program, and, if at all possible, knowledgeable in housing policy determination and implementation in developing countries. To make maximum use of such a technician, he should probably be attached to USAID/Tunisia or to an appropriate government agency, such as the proposed Council for Land Development and Town Planning. With the technician so placed, he would be in a position not only to assure proper utilization of the HG resource, but also to contribute to Tunisian housing plan development in those areas where the experience and expertise of the Office of Housing are particularly relevant.

L. SUPPLEMENTARY INFORMATION ON THE ECONOMY

1. Introduction: This section of the report contains information which, for the most part, does not bear directly on the shelter sector but which is felt to be sufficiently relevant to an understanding of Tunisia's overall economic circumstances to warrant its inclusion.

2. Domestic Saving and Investment: Economic theory and accounting practice relate the national income accounts and the balance of payments in such a way that the current account deficit in the balance of payments (exports plus net foreign transfers minus imports minus net factor services) is necessarily equal to the difference between domestic saving and total investment. That is, a deficit in the current account of the balance of payments can be (1) covered by an appropriate net foreign financial inflow or (2) reduced by increasing domestic saving or reducing total investment.

The current account deficit in the balance of payments and the planned foreign financial inflow requirements have been discussed above, but net domestic saving has not yet been examined. The relevant data are presented in Tables L1 and L2.

The proportion of gross investment financed by domestic saving averaged 76.9% over the 1968-72 period. The 1973-76 development plan, however, projects a slight decline in this proportion, to an average of 76.3%. This finding suggests that insufficient attention has been given to improving the economy's capability to mobilize domestic saving and invites a more detailed examination.

Table L1 contains a breakdown of domestic saving between the Government sector and the Enterprise and Household sector which readily reveals that over the 1973-76 period, it is the latter which is expected to

TABLE L1

DOMESTIC SAVING AND INVESTMENT
(Millions of Dinars)

	<u>Family Saving</u>	<u>Enterprise Saving</u>	<u>Government Saving</u>	<u>Total Domestic Saving</u>	<u>Total Gross Invest.</u>	<u>(DS-I) Net Domestic Saving</u>	<u>Ratio of Domestic Saving to Investment</u>
1968	26.2	68.2	5.4	99.8	137.8	-38.0	.724
1969	20.7	51.6	24.6	96.9	147.1	-50.2	.659
1970	29.7	45.6	26.4	101.9	151.0	-49.1	.675
1971	37.8	98.4	27.3	161.6	182.8	-21.2	.884
1972	54.2	120.7	38.6	213.5	236.5	-23.0	.903
1973	55.2	85.7	46.8	187.7	252.7	-65.0	.743
1974	63.8	111.7	58.0	233.6	310.6	-77.0	.752
1975	68.7	115.3	68.0	250.0	323.0	-73.0	.773
1976	77.3	126.1	71.6	273.9	348.9	-75.0	.785

TABLE L2

DOMESTIC SAVING AND INVESTMENT BY SECTOR
(Millions of Dinars)

	<u>Government Sector</u>			<u>Enterprise and Household Sector</u>		
	<u>Domestic Saving</u>	<u>Investment</u>	<u>Net Domestic Saving</u>	<u>Domestic Saving</u>	<u>Investment</u>	<u>Net Domestic Saving</u>
1968	5.4	50.2	-44.8	94.4	87.6	6.8
1969	24.6	54.0	-29.4	72.3	93.1	-20.8
1970	26.4	42.8	-16.4	75.3	108.2	-32.9
1971	27.3	41.5	-14.2	136.2	141.3	- 5.1
1972	38.6	49.4	-10.8	174.9	187.1	-12.2
1973	46.8	53.0	- 6.2	140.9	199.7	-58.8
1974	58.0	69.4	-11.4	175.5	241.2	-65.7
1975	66.0	77.4	-11.4	184.0	245.6	-61.6
1976	71.5	85.5	-14.0	202.4	263.4	-61.0

contribute most, in absolute terms, to the shortfall in domestic saving. It is also clear, however, that the relative shares of total gross investment are expected to shift toward the Enterprise and Household sector. In 1968, for example, Government sector investment represented slightly more than 36% of total gross investment; by 1976, this share is expected to fall to 24.5%.

Further investigation reveals that the Enterprise and Household sector savings rate, taken as a proportion of gross national product plus subsidies and transfers and less Government sector current account receipts, is expected to average 18.6% over the 1973-76 period, which is somewhat above the 1968-72 average of 17.9%, but below the 1971 and 1972 rates of 20.2% and 21.7%, respectively.

At the risk of being repetitive, it should be noted again that the housing investment programmed for 1973-76 represents a substantial increase over the recent past. In fact, total planned housing investment over this four-year period is 85% as large as investment in housing over the ten-year period 1962-72. Such an increase invites questions about the capability of the construction industry to achieve these targets.

3. Employment Considerations: Over the 1973-76 period, construction of housing and nonresidential structures will average slightly more than 58% of gross fixed capital formation. During these four years, the construction component is targeted at 147.5 million dinars in 1973, 175.2 million in 1974, 180.3 million in 1975, and 193.3 million in 1976. Although this type of classification of gross fixed capital formation, which is given in detail in Table L3, is not available for 1972, we may assume that the construction component in 1972 was, as planned for 1973-76, about 58% of the

TABLE L3

COMPOSITION OF GROSS FIXED CAPITAL FORMATION
(Millions of Dinars)

	<u>Agriculture</u>	<u>Mining</u>	<u>Energy, Power & Water</u>	<u>Manufacturing Construction Materials</u>	<u>Textiles</u>	<u>Other</u>	<u>Housing</u>
1969	27.6	2.5	16.2	2.4	3.5	11.1	20.6
1970	22.2	4.2	19.2	1.6	4.1	13.9	22.8
1971	21.2	5.2	30.3	1.6	2.2	18.2	22.1
1972	27.8	5.0	51.2	2.0	6.0	11.1	27.7
1973	32.5	4.1	49.5	6.5	7.3	28.0	32.6
1974	44.4	6.4	44.9	8.6	10.7	25.3	37.7
1975	50.4	9.4	44.9	11.3	11.2	15.6	36.7
1976	50.4	14.1	49.2	8.2	11.8	16.7	37.5

	<u>Transport & Communication</u>	<u>Tourism</u>	<u>Other</u>	<u>Total Gross Fixed Capital Formation</u>
1969	16.2	14.6	26.9	141.6
1970	19.0	14.0	25.2	146.2
1971	34.8	15.5	22.3	173.4
1972	32.8	16.3	27.6	207.4
1973	41.6	24.1	32.0	267.2
1974	52.2	28.2	42.9	301.2
1975	49.4	28.6	48.0	308.5
1976				

total and, given that the construction industry employed 59,000 workers in 1972, we may proceed to make rough estimates of the labor requirements for construction in the 1973-76 period. On the average, output per man-year in the industry in 1972 amounted to 2,039 dinars. Without further changes in technology which would increase output per man-year, the annual labor requirements for construction envisioned by the 1973-76 plan would be 72,339 workers in 1973, 85,924 in 1974, 88,425 in 1975, and 94,801 in 1976. The plan, however, anticipates an increase in employment of 19,000 workers in the construction industry, which implies that output per man-year would have to increase by an average of about 5% per year. While such a rate of technological progress is not inconceivable, it is rather high and a more plausible goal might be to accept a slightly lower rate of technological progress and attempt to mobilize a slightly larger number of new workers.

Estimating the skilled labor component of construction labor at about 15%, the labor requirements for construction in the 1973-76 plan will amount to an addition of almost 3,000 skilled workers to the construction labor force. Achievement of this target is regarded as feasible on the condition that migration of skilled construction workers to Europe and other parts of North Africa does not create the necessity for training workers over and above domestic needs.

Over-all employment growth targets for the 1973-76 plan call for an increase in employment of 119,000 workers, which includes an increase of 40,800 in manufacturing, most of which (27,000) are programmed for the textile industry. Over-all, the targeted increase in employment for 1973-76

is a relatively modest 8.6% above 1972. As noted above, however, and as presented below in Table L4, some industries are programmed for much larger increases than others.

In 1972, female employees represented 24.5% of total employment. If this proportion is maintained through the 1973-76 period and if all working-age males (15-64) are considered part of the potential labor force, the employment target for 1976, after adjusting for full-time students, but not taking worker migration into account, will constitute approximately 87% of the labor force. On the basis of these rough estimates, it may be concluded that a significant amount of unemployment will remain, even if the plan targets are fully achieved.

In the aggregate, and under the unrealistic assumption of a homogenous labor force, a 13% unemployment rate would not suggest the likelihood of encountering inflationary problems during the plan period. Given the fact, however, that the labor force is not homogenous and that the plan calls for significant changes in the structure of employment, the zero rate of inflation contemplated by the plan deserves to be examined closely.

4. Financial Sector Development and Inflationary Considerations: To illustrate the potential for this type of difficulty, it is estimated that in 1972, when the over-all rate of inflation was only .8%, the wages of skilled construction workers increased by approximately 30%. Should the economy encounter skilled-labor bottlenecks in pursuing the plan targets, wage increases in skilled categories might trigger an inflationary cycle to which the Tunisian government might feel compelled to respond by either scaling down its development targets or by instituting restrictive policy

TABLE L4

 SECTORAL EMPLOYMENT
 (Thousands)

	<u>Agriculture</u>	<u>Mining</u>	<u>Energy</u>	<u>Agri. Processing</u>	<u>Manufacturing</u>		<u>Other</u>
					<u>Textiles</u>	<u>Constr. Materials</u>	
1972	800.0	19.0	6.3	35.6	79.0	18.2	38.2
1976	800.0	17.0	7.1	38.9	106.0	21.7	45.2
TOTAL CHANGE	- 0 -	- 2.0	.8	3.3	27.0	3.5	7.0

	<u>Const- ruction</u>	<u>Transp. & Communi- cations</u>	<u>Tourism</u>	<u>Commerce</u>	<u>Govern- ment</u>	<u>Other Services</u>	<u>Total</u>
1976	74.0	49.0	33.5	93.0	136.0	80.0	1,505.4
TOTAL CHANGE	19.0	6.1	13.6	10.0	19.4	11.0	118.7

measures. Such policy measures could also result in the failure to realize certain plan targets.

If we view the potential source of inflationary pressure as deriving from skilled-labor bottlenecks and, hence, wage increases in excess of productivity gains, we should determine the capacity of the financial sector to absorb the potential excess demand which would result from such an eventuality.

In the general case, savers and investors may be viewed as different people. Both, of course, receive income, yet they face different alternatives as to its disposition. Again speaking generally, enterprise income may be distributed to shareholders, reinvested, or lent to others, either directly or indirectly through the medium of the financial system. Assuming that an individual wage earner is highly averse to undertaking risk, we may conclude that his realistic alternatives are between consumption and lending through the financial system -- that is, accumulating financial assets. To the extent that financial asset accumulation takes place and is channeled through the financial system to investors, rather than to other consumers, pressure on the productive capacity of the economy is relieved and the potential additional demand, as represented by the increment to financial assets, which constitute claims against real goods and services, is placed within the general control of the monetary authorities.

Table L5 contains data for the financial system and certain ratios reflecting the demand for money and the proportion of total financial assets held outside the financial system in the form of currency in circulation.

TABLE L5

MONEY AND QUASI-MONEY
(Millions of Dinars)

	<u>Currency in Circulation</u>	<u>Demand Deposits</u>	<u>Post Office Checking Deposits</u>	<u>Sub-Total (Money Supply)</u>	<u>Time and Savings Deposits</u>	<u>Savings Deposits CNE</u>	<u>"Total" Financial Assets</u>
1968	62.1	99.4	9.4	170.9	45.4	7.1	223.4
1969	64.5	108.7	8.1	181.3	48.4	7.8	237.5
1970	67.3	117.5	7.5	192.3	58.2	8.5	259.0
1971	80.4	153.1	7.5	241.0	62.8	10.4	314.2
1972	94.2	174.7	9.0	277.9	76.4	13.4	367.7

	<u>Income Velocity of Money</u>	<u>Currency Relative to Financial Assets</u>	<u>Time and Savings Relative to Financial Assets</u>	<u>Bank Demand Deposits Relative to Financial Assets</u>	<u>GDP Relative to Total Financial Assets</u>
1968	3.65	27.8%	23.5%	44.5%	2.79
1969	3.74	27.2%	20.4%	45.8%	2.86
1970	3.88	26.0%	22.5%	45.5%	2.88
1971	3.60	25.6%	20.0%	48.7%	2.76
1972	3.70	25.6%	20.8%	47.5%	2.80

The data shown in Table L5 reveal that there has been very little, if any, improvement in the financial system over the past five years. Although currency in circulation relative to total financial assets has declined somewhat, reflecting a reduction in the propensity to withhold financial assets from the banking system, the income velocity of money has remained more or less unchanged, as has the ratio of gross domestic product to total financial assets. Moreover, the composition of financial assets has shifted relatively toward demand deposits and away from time deposits whereas progress in financial development requires the opposite.

It is possible, in the case of Tunisia, that the structure of interest rates provides a partial explanation for such findings.

As of 10 February 1967, the maximum allowable rate of interest payable on demand deposits was 1.75%, while the yield on savings deposits was 3.00% for 1-6 months maturities and 3.50% for 6 months maturities, 3.50% for 6-12 months maturities, and 4.00% for maturities of one year or more. The interest rate differential, at 1.25%, between the short-maturity time and savings deposits and demand deposits may not have been sufficient to overcome the premium placed on liquidity.

The interest rate structure was revised as of 29 June 1971, reducing the maximum allowable rate on demand deposits to 1.00%, generally reducing the rates payable on the shorter-term time and savings deposits, and increasing the rates payable on the longer-term time and savings deposits. Savings deposits of 1-6 months maturity remained at 3.00%, 6-12 months maturities were reduced from 3.50% to 3.00%, but savings deposits of one year or more were allowed to yield up to 5.50%.

Although it may yet be too soon to determine the effects of these changes, it would appear that no marked shift in financial asset structure occurred during 1972. Indeed, the current interest rate structure might well be criticized for apparently giving insufficient importance to the premium for liquidity required by the depositor.

It should also be noted that the rates of inflation during the 1968-72 period were, although modest by the standards of most developing countries, sufficiently high relative to interest rate levels that a real rate of return could, in general, be obtained only on time deposits of over one year maturity. In 1971, of course, with the rate of inflation at 6.3%, no deposits earned a positive real rate of interest. This situation improved in 1972, when the inflation rate fell to .8%, so that all deposits could yield a positive real rate of return.

No similar changes in the structure of loan interest rates occurred during 1968-72. The current structure was established on 5 September 1966 and provides for maximum rates of interest on short-term rediscountable loans of between 5.75% and 7.50% and 6.50% and 8.00% on nonrediscountable loans. With respect to medium and long-term loans, minimum rates on rediscountable loans range from 5.50% on housing loans guaranteed by the state to 7.25% on other types of credit; maximum rates on rediscountable housing loans are not regulated and range from 7.25% on loans for agricultural equipment to 8.00% on loans for other purposes. Interest rates for nonrediscountable medium and long-term loans are not regulated.

Since legal loan rates of interest have not changed since 1966, it is difficult, if not impossible, to evaluate the effect of the loan rate

structure on the composition of credit. It is nevertheless interesting to examine the sector composition of outstanding credit, which is given in Table L6, for it reveals that the proportion of total credit extended to the construction sector in 1972, at 9.5%, is slightly higher than the proportion of gross domestic product at factor cost accounted for by this sector (8.0%). This finding, however, does not necessarily imply that the capacity of the financial sector to deal with the demand for long-term mortgage credit is adequate. This topic is dealt with in another section of the report.

Comparing Tables L5 and L6 reveals that, although the composition of financial assets leaves something to be desired, financial asset holdings have grown relative to credit outstanding. In 1968, outstanding credit relative to financial asset holding was 99.7%, in 1969, 98.9% in 1970, 98.4% in 1971, 90.6%, and in 1972, 90.0%. This trend offers some hope of approximating inflation targets over the 1973-76 period. The highly liquid structure of financial assets, however, together with the high probability of encountering skilled-labor bottlenecks during the 1973-76 period, provides sufficient justification for concern.

5. Government Revenue and Expenditures: The government budget, of course, represents an additional, major means of containing inflationary pressures.

Simple elasticity calculations based on gross domestic product and the data presented in Table L7, reveal that, in the aggregate, the Tunisian tax structure is mildly progressive; the mean elasticity of total tax revenue, taken as the sum of direct taxes, indirect taxes, and social security contributions, with respect to gross domestic product is 1.058.

TABLE L6

COMPOSITION OF SECTORAL BANK CREDIT OUTSTANDING
 (Millions of Dinars)

	<u>Agriculture</u>	<u>Mining</u>	<u>Energy</u>	<u>Manu- facturing</u>	<u>Transport & Communications</u>	<u>Tourism</u>
1968	21.3	4.2	3.5	54.1	2.4	22.2
1969	22.0	4.9	2.1	53.6	3.2	29.4
1970	23.4	5.6	1.6	57.1	4.2	34.5
1971	26.5	7.3	1.7	63.0	3.6	40.0
1972	26.6	8.9	2.0	69.5	6.7	45.6

	<u>Commerce</u>	<u>Other Services</u>	<u>Construction</u>	<u>Unaccounted for Credit</u>	<u>Total Credit</u>
1968	30.5	2.5	25.2	56.6	222.8
1969	33.4	2.8	25.4	57.6	234.3
1970	35.5	3.0	24.8	65.1	254.8
1971	44.0	2.8	26.2	69.7	284.8
1972	56.7	6.9	31.4	76.5	330.8

NOTE: Includes Central Bank, but does not include National Savings Bank (CNE).

TABLE L7

GOVERNMENT SECTOR CURRENT ACCOUNT
(Millions of Dinars)

	<u>Direct Taxes</u>	<u>Indirect Taxes</u>	<u>Soc. Sec. Contributions</u>	<u>Interest & Dividends Received</u>	<u>Other Receipts</u>	<u>Total Receipts</u>	<u>Government Sector Saving</u>
1968	41.1	84.1	17.5	3.9	1.5	148.1	5.4
1969	54.6	98.8	20.7	5.0	1.2	180.4	24.6
1970	55.1	106.4	22.0	0.7	1.7	196.0	26.4
1971	56.6	121.2	24.4	0.7	2.6	215.5	27.3
1972	66.1	142.9	27.3	4.4	2.5	253.1	38.6
1973	74.8	158.0	31.2	15.8	2.0	279.8	46.8
1974	80.2	171.0	34.3	16.9	2.1	304.4	58.0
1975	86.2	185.8	38.0	17.2	2.2	329.3	68.0
1976	89.3	200.9	41.9	18.8	2.2	353.1	71.6

	<u>Consumption</u>	<u>Transfers</u>	<u>Subsidies</u>	<u>Interest in Debt</u>		<u>Total Expenditures</u>
				<u>Internal</u>	<u>External</u>	
1968	109.3	19.7	6.7	4.1	2.9	142.7
1969	128.1	21.5	6.8	5.2	4.2	155.8
1970	130.8	24.1	4.7	4.4	5.5	169.5
1971	137.9	28.5	7.1	6.2	7.4	187.1
1972	156.9	30.4	12.5	6.8	7.8	214.5
1973	170.9	38.8	10.9	8.8	7.0	233.0
1974	181.6	39.4	11.1	8.8	7.5	246.4
1975	194.8	42.2	10.8	7.1	8.3	263.2
1976	208.9	45.3	11.0	7.0	9.5	281.7

That is, on the average over the 1968-76 period, a one dinar increase in gross domestic product should be associated with a 1.058 dinar increase in tax revenue.

While no direct evidence was collected on tax rates and changes therein during the survey team's visit, the fact that the simple ratio of total tax revenue to gross domestic product remains essentially unchanged over the period suggests that the elasticity calculation does not derive from significant changes in tax rates but is a product of the existing and ongoing tax structure.

Therefore, it can be concluded that the Tunisian tax structure affords some built-in protection against inflation, even though the degree of protection is slight.

Indeed, the government's current account, shown in Table 39, indicates a strong past performance in terms of government saving and an even stronger performance over the 1973-76 plan period.

Reference to the government's capital account, shown in Table L8, reveals also that the GOT has had in the past only limited recourse to borrowing from the Central Bank, that virtually all of the 6.3 million dinars borrowed in 1968 and 1969 from the Central Bank were repaid in 1970, and that, on the average, almost half of its total capital expenditures have been and are planned to be devoted to fixed capital formation.

Moreover, although it has been mentioned in an earlier part of this section of the report that projected foreign financial inflow requirements might be somewhat overstated, it would appear that the government's dependency on external financing will be reduced significantly over the

TABLE L3

GOVERNMENT SECTOR CAPITAL ACCOUNT
(Millions of Dinars)

	<u>Fixed Capital Formation</u>	<u>Subsidies</u>		<u>Debt Amortization</u>			<u>Loans and Advances</u>	<u>Other</u>	<u>Total Expendi- tures</u>
		<u>Enter- prises</u>	<u>House- holds</u>	<u>Internal</u>	<u>BCT</u>	<u>External</u>			
1968	50.2	19.2	.5	2.2	-	9.1	3.6	.1	84.7
1969	54.0	22.4	.6	2.6	-	9.1	2.4	1.3	92.4
1970	42.8	18.7	.3	4.2	6.1	12.8	6.8	.1	91.6
1971	41.5	15.5	1.0	13.0	-	12.0	4.6	4.6	92.2
1972	49.4	21.4	1.3	9.2	-	19.8	10.4	1.2	112.7
1973	53.0	39.0	1.5	10.8	-	13.7	3.8	2.0	123.8
1974	69.4	61.2	1.7	12.1	-	14.0	4.3	1.3	164.0
1975	77.4	61.7	1.9	15.8	-	15.8	4.8	1.4	178.4
1976	85.5	61.6	2.2	19.3	-	17.0	5.2	1.5	192.3
	<u>Loan Proceeds</u>			<u>Developm. Assist- ance</u>	<u>Loan Repay- ments</u>	<u>Other</u>	<u>Total Receipts</u>		
	<u>Internal</u>	<u>BCT</u>	<u>External</u>						
1968	5.8	.9	36.6	13.8	2.2	1.9	61.2		
1969	5.2	5.4	24.9	20.0	2.1	4.3	61.9		
1970	5.5	-	30.8	20.7	2.1	3.5	62.6		
1971	11.3	-	28.8	18.0	2.3	3.4	63.8		
1972	19.7	-	27.0	16.2	2.2	4.4	69.5		
1973	14.1	-	37.4	18.8	2.4	6.7	79.4		
1974	31.8	-	36.0	17.0	2.8	6.0	93.1		
1975	40.6	-	37.1	18.4	2.8	6.9	109.0		
1976	50.8	-	39.7	10.8	3.0	7.2	117.3		

1973-76 period. Whereas in 1968, the proceeds from foreign loans amounted to 59.8% of the government's capital account receipts, by 1967 they are planned to account for only 33.8% of total receipts. Development assistance should also decline from 22.5% of total capital account receipts in 1968 to 14.2% in 1976. At the same time, the emphasis is projected to shift strongly toward internal borrowing. In 1968, internal borrowing accounted for only 9.5% of capital account receipts; in 1976, internal borrowing is expected to comprise 43.3%.

In this context, it is worth recalling our earlier analysis of the financial sector, in which it was concluded that the financial sector had shown only very limited evidence of further development over the 1968-72 period. Although growth in financial assets and in credit apparently kept pace with economic growth, the apparent lack of structural change in the financial sector was regarded as a problem for future economic growth and development. A significant change in the government's borrowing pattern, such as indicated above, may strain the capacity of the financial sector in ways which the 1973-76 development plan does not anticipate.

LIST OF PERSONS CONTACTED

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