Report No. 20173-TUN

Republic of Tunisia
Private Sector Assessment Update

Meeting the Challenge of Globalization

(In Three Volumes) Volume III: Annexes

December 14, 2000

Private and Financial Sector Development Department
Middle East and North Africa Region

Document of the World Bank

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Annex 1

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Reforms since 1994

Objective	Measure
A. Promote Internal and External Competition	
Liberalize foreign trade	• Association Agreement with the European Union was signed in 1995, stipulating the removal of all trade barriers on non-agricultural commodities over a 12-year period. • Trade policy shifted in 1994 from a positive list to a negative list regime. • Imports of capital goods with no close domestic substitutes have been exonerated from import duties since 1996. • Import licensing and quantitative restrictions have been gradually removed on the bulk of imports, beginning in 1992 and accelerating in 1994. • Trade-related transactions costs have been reduced through the current convertibility of the dinar in 1994, which removed the requirement for the Central Bank foreign exchange transfer authorization, thus eliminating undue import delays.
Promote greater competition in domestic markets	• A competition and price reform law, introduced in 1991 and further strengthened in 1994, has relaxed a complex and inefficient price control system that discouraged domestic competition. • A Competition Council has been established to enforce the competition law. • Prices have been deregulated.
B. Facilitate Access to Finance	
Reduce predominance of public sector in banking and promote competition in banking services	• *Banque du Sud* was privatized in late 1997, and the share of Government is now less than 34 percent in this bank. • UIB, the fourth largest public sector bank (9 percent of commercial bank assets), is planned to be privatized. It will be first merged with a development bank (BTEI) before privatization. • Government plans to merge other development banks. • Financial liberalization has continued throughout the 1990s, ending an era of very low interest rates. • Prudential regulation based on capital adequacy, strict classification of bad loans according to the degree of risk, and adequate provisioning, has helped reduce the incidence of non-performing loans.
Develop capital markets	• Corporate tax rate has been reduced from 35 percent to 20 percent for those companies that issue shares on the stock market.
Develop sources of risk capital for SMEs	• FOPRODI has recently been reformed to participate, along with SICARs, in equity of SMEs.

Objective	Measure
C. Reduce fiscal disincentives	
Simplify the Investment Code	• A unified investment code replaced sectoral codes in 1994, reducing distortions across economic activities. • Indirect and partial exporters receive the same tax advantages as offshore firms (in proportion of exported production).
Improve Taxation	• Direct taxation was greatly simplified in the early 1990s, and statutory corporate rates were reduced from 60 percent to 35 percent.
D. Improve Skills and Technology	
Improve availability of skilled manpower	• Labor market has become more flexible since 1994 through two reforms involving labor shedding and fixed-term contracts. • Vocational training schemes are being reformed to respond better to industry needs.
Re-orient the technology infrastructure to better respond to the needs of the private sector.	• Technical Centers are being reformed through performance contracts (including the incentives and penalties), and are generating an increasing share of their revenues from the user fees for services to the private sector • A national metrology system in being put in place
E. Reduce the State's Direct Economic Activities	
Accelerate privatization	• The adoption of the Law 94-102 has accelerated the privatization program.
Promote private participation	• Concession of the Radès power plant in 1998. • Water sector concessions on-going.
F. Facilitate Trade	
Reduce the step, time and cost involved in trade transactions.	• A comprehensive trade facilitation plan, involving trade document simplification through electronic data interchange, has been formulated and is being implemented. The *Tunisie Trade Net* has been established to implement the system. • The customs' SINDA system has been updated and is being integrated through electronic means with the systems of other parties involved in trade transactions. • Customs procedures are being reviewed.
G. Improve the Legal and Regulatory Framework	
Create appropriate rules-of-the-game for private sector activity	• A new Company Law is in the Parliament • A study has been conducted in 1998 on the reforms of the legal and judicial system

Annex 2

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Data on the Structure and Characteristics of Private Sector (1983-1998)

Table 2.1: Tunisia: Sectoral shares and contributions to GDP growth

	Value added (constant 1990 prices)				Growth rates			Share in GDP						
	1995	1996	1997	1998	1995-96	1996-97	1997-98	1995	1996	1997	1998	1995-96	1996-97	1997-98
AGRICULTURE AND FISHERY	1573	2038	2098	2077	29.5%	3.0%	-1.0%	13.7%	16.5%	16.1%	15.2%	52.5%	9.0%	-3.4%
MANUFACTURING INDUSTRIES	2404	2469	2645	2739	2.7%	7.1%	3.6%	20.9%	19.9%	20.3%	20.0%	7.3%	26.3%	15.4%
Agro processing industries	426	434	517	491	1.9%	19.0%	-5.0%	3.7%	3.5%	4.0%	3.6%	0.9%	12.4%	-4.2%
MAN. OTHER THAN AGRO PROCESSING	1978	2034	2128	2248	2.9%	4.6%	5.7%	17.2%	16.4%	16.3%	16.5%	6.4%	14.0%	19.7%
Construction materials and glass	264	263	265	275	-0.3%	1.0%	3.5%	2.3%	2.1%	2.0%	2.0%	-0.1%	0.4%	1.5%
Mechanical and Electric industries	335	338	362	387	0.9%	7.0%	7.0%	2.9%	2.7%	2.8%	2.8%	0.4%	3.5%	4.1%
Chemical industries	254	267	275	288	5.1%	3.0%	4.5%	2.2%	2.2%	2.1%	2.1%	1.5%	1.2%	2.0%
Textile, Clothing and Leather	804	832	873	926	3.5%	5.0%	6.0%	7.0%	6.7%	6.7%	6.8%	3.2%	6.2%	8.5%
Other industries	321	334	352	373	4.1%	5.4%	6.0%	2.8%	2.7%	2.7%	2.7%	1.5%	2.7%	3.4%
NON MANUFACTURING INDUSTRIES	1587	1656	1711	1819	4.3%	3.3%	6.4%	13.8%	13.4%	13.1%	13.3%	7.8%	8.2%	17.7%
Mining	111	118	107	125	7.0%	-9.3%	16.4%	1.0%	1.0%	0.8%	0.9%	0.9%	-1.6%	2.9%
Hydrocarbon	602	635	639	662	5.6%	0.6%	3.6%	5.2%	5.1%	4.9%	4.8%	3.8%	0.6%	3.8%
Electricity	206	215	229	244	4.3%	6.8%	6.5%	1.8%	1.7%	1.8%	1.8%	1.0%	2.2%	2.4%
Water	70	72	76	80	2.4%	5.6%	5.0%	0.6%	0.6%	0.6%	0.6%	0.2%	0.6%	0.6%
Construction	599	616	659	709	2.8%	7.0%	7.5%	5.2%	5.0%	5.1%	5.2%	1.9%	6.5%	8.1%

SERVICES	4582	4870	5161	5514	6.3%	6.0%	6.8%	39.9%	39.3%	39.6%	40.4%	32.5%	43.6%	57.6%
Commerce	1215	1257	1304	1392	3.5%	3.7%	6.7%	10.6%	10.2%	10.0%	10.2%	4.8%	7.0%	14.3%
Transport	736	772	834	880	5.0%	8.0%	5.5%	6.4%	6.2%	6.4%	6.4%	4.2%	9.2%	7.5%
Communications	251	319	349	402	27.3%	9.5%	15.0%	2.2%	2.6%	2.7%	2.9%	7.7%	4.5%	8.5%
Hotels, Bars, Restaurants	680	706	758	800	3.7%	7.4%	5.5%	5.9%	5.7%	5.8%	5.9%	2.9%	7.8%	6.8%
Financial Services	593	658	696	742	11.1%	5.7%	6.7%	5.2%	5.3%	5.3%	5.4%	7.4%	5.6%	7.6%
Other Saleable services	1108	1157	1220	1299	4.4%	5.4%	6.5%	9.6%	9.3%	9.3%	9.5%	5.5%	9.4%	12.9%
o/w real estate renting	479	493	535	557	3.0%	8.5%	4.0%	4.2%	4.0%	4.1%	4.1%	1.6%	6.3%	3.5%
OTHERS	456	516	535	560	13.1%	3.8%	4.6%	4.0%	4.2%	4.1%	4.1%	6.8%	2.9%	4.0%
Non market services	1801	1861	1967	2073	3.3%	5.7%	5.4%	15.7%	15.0%	15.1%	15.2%	6.8%	15.8%	17.3%
o/w public Administration	1743	1803	1908	1990	3.4%	5.8%	4.3%	15.2%	14.6%	14.6%	14.6%	6.7%	15.7%	13.4%
GDP AT FACTOR COST	11491	12377	13046	13663	7.7%	5.4%	4.7%	100.0%	100.0%	100.0%	100.0%			
Indirect taxes minus subsidies	1583	1631	1722	1842	3.1%	5.5%	7.0%							
GDP AT MARKET PRICE	13074	14009	14768	15506	7.1%	5.4%	5.0%							

Source: Tunisia -- Social and Structural Review, 2000; calculations based on data from the Ministry of Economic Development.

Table 2.2: Tunisia (Firm Size by Employment and Sector)

SECTOR	EMPLOYMENT				TOTAL
	1 - 5	6 - 49	50 - 199	200+	
Agriculture	111	214	53	21	399
Fish	33	132	8		173
Oil and Gas exploration	12	11	7	3	33
Mining	142	95	16	4	257
Agroindustry	1329	936	97	24	2386
Textile and clothing manufactures	955	801	472	134	2362
Leather and shoe industries	180	154	55	9	398
Wood and wood products	1528	133	13	1	1675
Paper industry	208	142	30	6	386
Refinery and nuclear energy		1	1	1	3
Chemicals	158	161	34	8	361
Rubber and plastic industries	63	93	27	6	189
Manufacture of mineral and non-metallic industries	216	198	62	17	493
Metal works industries	685	264	60	9	1018
Machinery and equipment manufacturing	78	65	22	4	169
Electrical and electronic industries	159	73	41	20	293
Transportation materials	64	29	7	7	107
Other manufacturing industries	393	153	37	7	590
Electricity and Gas production and distribution	2	2			4
Construction	1588	888	170	68	2714
Trade, auto and home repair	11866	2062	112	19	14059
Hotels and restaurants	3010	501	116	74	3701
Transports and communications	6801	307	67	27	7202
Real estate and enterprise services	2830	520	77	32	3459
Public administration	17	21	2		40
Education	495	65	2		562
Health and public health	1807	108	20	3	1938
Social services	1159	174	21	2	1356
Domestic services	4		1		5
International organizations	2	5		1	8
Total	35895	8308	1630	507	46340

Table 2.3: Size Distribution of Private Firms in the Industrial Sector 1998

Sector	less than 20 employees	20-50 employees	50-100 employees	100-150 employees	150-250 employees	250-500 employees	more than 500 employees	Total
Agro Industry	92	127	84	46	38	25	14	426
Construction Material	63	108	46	24	25	13	8	288
Mechanical and Metallurigical Ind.	140	159	69	33	12	13	5	432
Electric and Electronics	59	48	32	15	18	17	7	196
Chemical Industry	105	135	53	11	21	3	5	334
Textiles and Clothing	224	582	506	231	163	89	26	1822
Wood and Wood Product	29	37	22	7	7	4	1	109
Leather and Shoes	34	92	60	25	12	5	3	232
Total	821	1383	920	408	307	172	73	4083

Table 2.4: Investments in the Onshore and Offshore Sectors
(Millions of dinars)

SECTOR	OFF SHORE			ON SHORE		
	1990	1995	1998	1990	1995	1998
Agro-industry	26.9	0.4	60.6	146.8	318.8	329.5
Textile and clothing	233.2	67.8	124.5	170.6	129.9	64.2
Mechanical & electrical	21.7	18.4	61	169.7	90.8	109.1
Chemicals	12.4	19.3	15.2	37.7	62.4	81.6
Miscellaneous	16.2	16.6	20.5	114.4	128.1	107.1
Construction material	8.6	24.2	9.9	96.2	169.1	182.9
Total	319	146.7	291.7	735.4	899.1	874.4

Source: Industrial Promotion Agency

Table 2.5: Private Investment in Tunisia
(1983-1998)

Period	Total Investment/GDP (%)	Private Investment/GDP (%)	Private investment/ Total investment (%)
1983-86	28.4	13.5	47.5
1987-91	21.6	10.6	48.9
1992-95	26.6	12.3	46.5
1995	24.2	11.7	48.4
1996	23.2	11.7	50.6
1997	24.6	12.4	50.4
1998	25.0	12.8	51.0
Other Countries (1990-95):			
All Developing Countries	23.3	16.5	70.8
- Europe, Middle East and North Africa	21.3	12.3	57.7
- East Asia	34.3	25.6	74.6
- Latin America and the Caribbean	19.1	14.6	76.4

Table 2.6: Tunisia's Mean MFN Tariffs and Post-Uruguay Round Tariffs, 1996

Chapter (1)	Product Group (2)	MFN Simple Mean Tariff Rate (1996) (3)	Simple Mean Bound Rate (4)	Bound Tariff Lines (percent) (5)
01	Live Animals & Products	35.5	116.7	56.4
02	Vegetable Products	33.5	128.1	100.0
03	Fats & Oils	32.0	120.5	92.7
04	Prepared Food	37.2	113.4	93.4
05	Mineral Products	17.6	25.5	3.1
06	Chemicals & Products	23.8	38.3	34.9
07	Plastics & Rubber	26.5	36.0	73.8
08	Hides & Skins	32.7	68.5	47.3
09	Wood and Articles	30.6	36.5	46.7
10	Pulp, Paper, etc.	33.0	34.2	39.0
11	Textile & Articles	36.7	57.7	96.6
12	Footwear, Headgear	38.3	41.6	19.7
13	Articles of Stones	31.0	35.6	16.9
14	Precious Stones	-	-	-
15	Base Metals & Products	22.9	29.1	25.3
16	Machinery	25.5	27.4	47.6
17	Transport Equipment	24.2	28.6	47.7
18	Precision Instruments	27.1	33.3	61.7
19	Arms and Ammunition	-	-	-
20	Misc. Manufactures	35.2	41.0	22.6
21	Works of Art	-	-	-
	Agriculture	33.7(*)	116.7	97.1
	Industry	29.5(*)	41.2	46.3
	All lines	30.2(*)	59.0	52.8

*estimated as non-weighted averages over mean chapter rates.

Source: S. Togan and R. Safadi, "The MENA Countries and the Uruguay Round and Beyond," paper presented at the Economic Research Forum (ERF) Workshop on Preparing for the WTO 2000 Negotiations," Cairo (July 1999).

Table 2.7: Industrial Electricity Tariffs in 1997 in US$/kwH

Country	
Japan	0.146
Morocco	0.129
Switzerland	0.102
Portugal	0.098
Italy	0.094
Lebanon	0.088
Austria	0.081
Colombia	0.080
Argentina	0.079
Turkey	0.077
Bolivia	0.077
Uruguay	0.077
Germany	0.072
Chile	0.070
Taiwan	0.069
United Kingdom	0.065
Ecuador	0.065
Denmark	0.064
Spain	0.064
Ireland	0.063
(South) Korea	0.063
Netherlands	0.063
Tunisia	**0.062**
Thailand	0.061
Australia	0.056
Belgium	0.055
Hungary	0.054
Greece	0.053
Czech Republic	0.052
Finland	0.052
Peru	0.052
Slovak Republic (Slovakia)	0.052
France	0.049
Mexico	0.048
United States	0.044
New Zealand	0.043
Poland	0.036
Sweden	0.034
Algeria	0.030

Source: Energy Prices & Taxes - Quarterly Statistics (Fourth Quarter 1998), Part II, Section D, Table 19 (OECD Countries) and Part III, Section B, Table 18 (Non-OECD Countries), Paris: International Energy Agency, 1999. For Algeria, Lebanon and Morocco: World Bank Internal Database from MNSID at http://mna.worldbank.org/html/id/etrmna.htm.

Annex 3

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Private Enterprise Survey

Introduction

Tunisia's economy is in a dynamic period of adjustment and growth. Stabilization and liberalization have already enhanced opportunities for private enterprises. Yet, in light of recent efforts to integrate the into the global economy (through AAEU and regional agreements), there is a need for further reforms and institutional strengthening to respond to the needs of private entrepreneurs starting, operating and expanding their operations. This Annex summarizes the results of a survey of 396 Tunisians private enterprises carried out as part of a World Bank PSA update in Tunisia in the fall of 1999. The survey questionnaire (125 questions) was designed by the World Bank and refined and implemented by *Institut Arabe de Chefs d'Entreprises* (IACE). The survey makes observations based on different firm characteristics (size, outward-orientation, ownership, location, etc), and forms a critical part of assessing the constraints to market-based private sector development, adding the perspectives of entrepreneurs working daily in the local business environment, confronting local rules, institutions and resources. However, as in other surveys, the responses should be interpreted as indicative rather than representative for the whole private sector.

This survey has been conducted at a time when Tunisian firms are still operating in a protected environment, despite the signature of the AAEU which is opening the Tunisian economy to European imports. The schedule of tariff reductions in the context of the AAEU, has so far led to an increase in effective protection for most sectors. This, together with high levels of concentration in many sectors, has meant that private firms are not yet under significant competitive pressure. While private enterprises, especially larger ones that usually benefit from Government support programs, such as the *mise à niveau* program, find them useful, such assistance would be more effective when competitive forces induce firms to enhance competitiveness, shed outdated production and management techniques, and improve quality and delivery. As with any single source of data, the inherent biases of profit-seeking firms must also be recognized, and these perspectives should be balanced with other information and analysis. For these reasons, the Annex also draws on the findings of other studies that have been conducted over the past four years. These include:

- A USAID-financed study (on behalf of MCIIE), conducted by PriceWaterhouseCoopers and the Services Group, to assess administrative constraints facing American foreign investors in Tunisia (1999).
- A survey of 203 on-shore firms and financial institutions, conducted by *SCET Tunisie* in December 1998 in the context of preparation of export development project, concerning issues and constraints to export development.
- An investor perception study and an investor targeting strategy for Tunisia, prepared by Foreign Investment Advisory Services (FIAS) for the Tunisian Foreign Investment Promotion Agency in 1998
- A survey, conducted by the Institute of Quantitative Economics (IEQ, 1996), covering 179 Tunisian firms operating in manufacturing and tourism. About a third of interviewed firms have the off-shore status.
- A survey (1995, Ministry of International Cooperation) concerning the perception of 124 European investors about the Tunisian business environment.

Sample Characteristics. The main sample is comprised of 300 small, medium and large firms, while a supplementary, shorter questionnaire was administered to a sample of 96 microenterprises (Table 3.1). The stratification of the sample is based on three variables: region, sector, and size. The sample is spread in and around Tunis, the coastal region, and the interior region. Among the main sample, the largest number of firms are in industry (39 percent), followed by services (33 percent) and commerce (16 percent). Measured in terms of full-time employees, 25 percent of the sample is microenterprises, 38 percent is small-scale, 25 percent medium-scale, and 12 percent large.

Table 3.1: Sample Characteristics

	Sector							
Firm Size	**Agricul.**	**Manufac-turing**	**Construc.**	**Services**	**Commerce**	**Responses Completed**	**% col.**	**Total Surveyed**
Micro (1 - 5 workers)	1	9		40	25	75	20,9	75
Small (6 -20)	7	15	5	25	18	70	19,5	70
Medium (21-100)	10	53	1	29	14	107	29,8	107
Large (>100)	11	64	9	21	2	107	29,8	107
Responses Completed	29	141	15	115	59	359	100,0	360
% row	8,1%	39,3%	4,2%	32,0%	16,4%	100,0%		
Total Surveyed	31	154	17	130	64	396		396

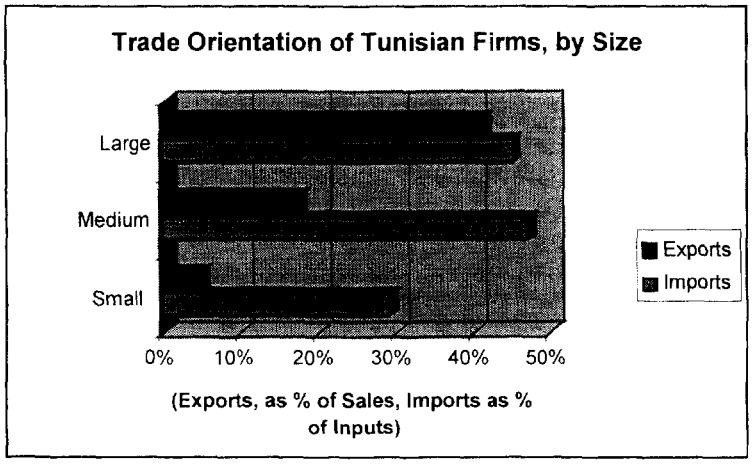
Exports by the sample firms are substantial, totaling 23 percent of sales (Table 3.2). The leading export destination is France, but Italy also figures prominently, as do Germany and Libya. Exports rise steadily with firm size and account for over 41 percent of the sales of large firms, but a mere 5 percent of small firm sales. Microenterprises in the sample do not export. Industry is the most active sector for exports (32 percent of sales), followed by commerce (21 percent). Most puzzling is the services sector, where one might assume tourism would be considered an export. Either because of how the question was posed or because of sample composition (no hotels), only 7 percent of services are described as exports, while in agriculture only 4 percent of goods are exported and in construction (a classic nontradable good) less than 2 percent of sales are accounted for by exports.

Table 3.2: Sales Destination of Sample Firms

Sales Destination	**Small**	**Medium**	**Large**	**Agric.**	**Indust.**	**Constr.**	**Commerce**	**Services**	**Overall mean**
Tunisia	95.00	82.50	58.68	96.38	67.60	98.57	78.53	93.16	77.33
France	1.53	6.34	11.98	0.71	10.86	0.71	5.11	3.23	7.12
Italy	0.66	3.48	9.75	0.00	8.33	0.71	3.00	0.48	4.95
USA, EU	0.00	0.65	2.59	0.00	1.04	0.00	2.36	0.16	1.16
Libya	0.55	2.20	3.46	0.00	3.82	0.00	0.96	1.03	2.24
Germany	0.39	2.39	5.34	0.05	2.63	0.00	5.43	1.61	2.92
Others	1.88	2.44	8.21	2.86	5.72	0.00	4.61	0.32	4.28
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Within the sample, there is a subset of firms that export 80 percent or more of their production (i.e., offshore firms). These firms are subject to a different set of rules for trade and taxation than onshore firms. Of 182 firms reporting, 48 percent export while 52 percent do not. Of those that export, a minority export 80 percent or more of their production, accounting for around 18 percent of the total sample.

Figure 3.1



Imports account for a substantial percentage of firms' primary materials and goods for final sale – around 43 percent of all inputs. Small firms import considerably less than medium and large firms. Industry, which is the most active export sector, also far exceeds other sectors in imports, which account for half of industrial inputs. Finally, it should be no surprise that offshore firms, which export over 80 percent of their output, import roughly 62 percent of their inputs (detailed information available on file).

The survey asked firms their ranking of pre-defined questions on the constraints that they face, as well as an open-ended spontaneous question on the three main constraints that the firms faced in their operations and new investment decisions. With respect to pre-identified questions (general constraints), firms were asked in the survey to rank a number of constraints to their operations and growth on a scale from 1 to 5, where a 1 indicated the constraint imposed "no obstacle", a 3 indicated a "moderate obstacle", and a 5 indicated a "very severe" obstacle.

General Constraints

Graphs 3.1 and 3.2 show enterprises' rankings of the major constraints they confront in the immediate future. Perhaps the most striking finding is that few firms ranked any constraints a 4 or 5, and average scores were generally low compared to most other similar country surveys. While cultural factors may partially explain these low scores, much can be explained by: (a) improvement of the business environment resulting from reform policies; and (b) the relatively low level of competition facing private firms at present. As markets become more fully integrated with the European Union and protection diminishes, even moderate constraints of today may become severe tomorrow. In addition, the open-ended question revealed more information about the constraints facing Tunisian private firms. The two leading constraints, taxes and tax administration, form a key complaint of firms in almost every country, but it is interesting to note that the administrative burden ranks equal in the minds of firms to the constraint imposed by the level of taxes they must pay. Firms in construction feel especially constrained by the level of taxes they must pay. The third leading constraint identified is the level of demand, noticed more by firms in construction and agriculture, the two sectors most reliant on domestic demand. The cost of financing ranks next, followed by infrastructure services and labor regulation, but these rank on average as only minor constraints, as do all the other general constraints evaluated in the survey.

Figure 3.2

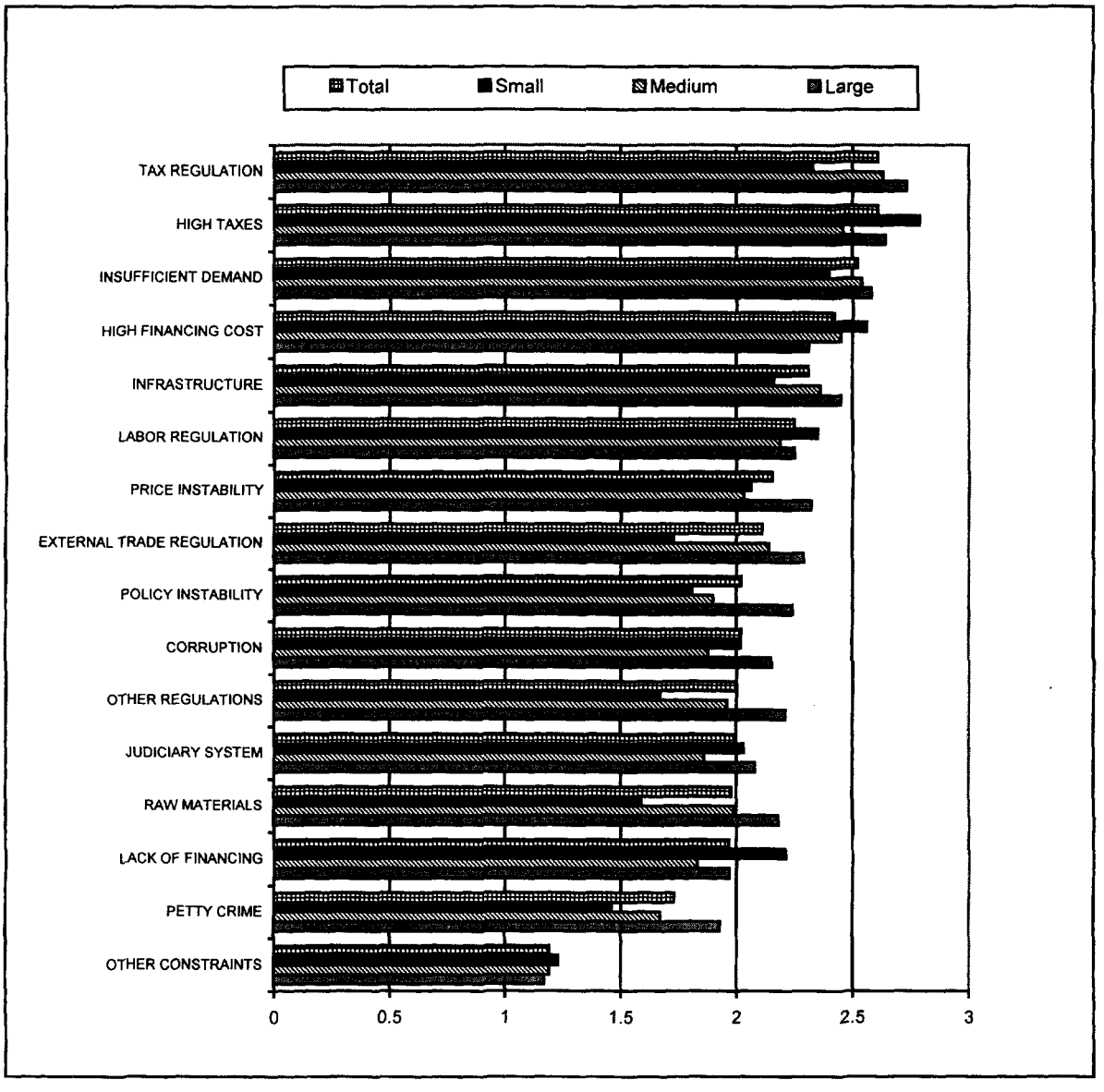
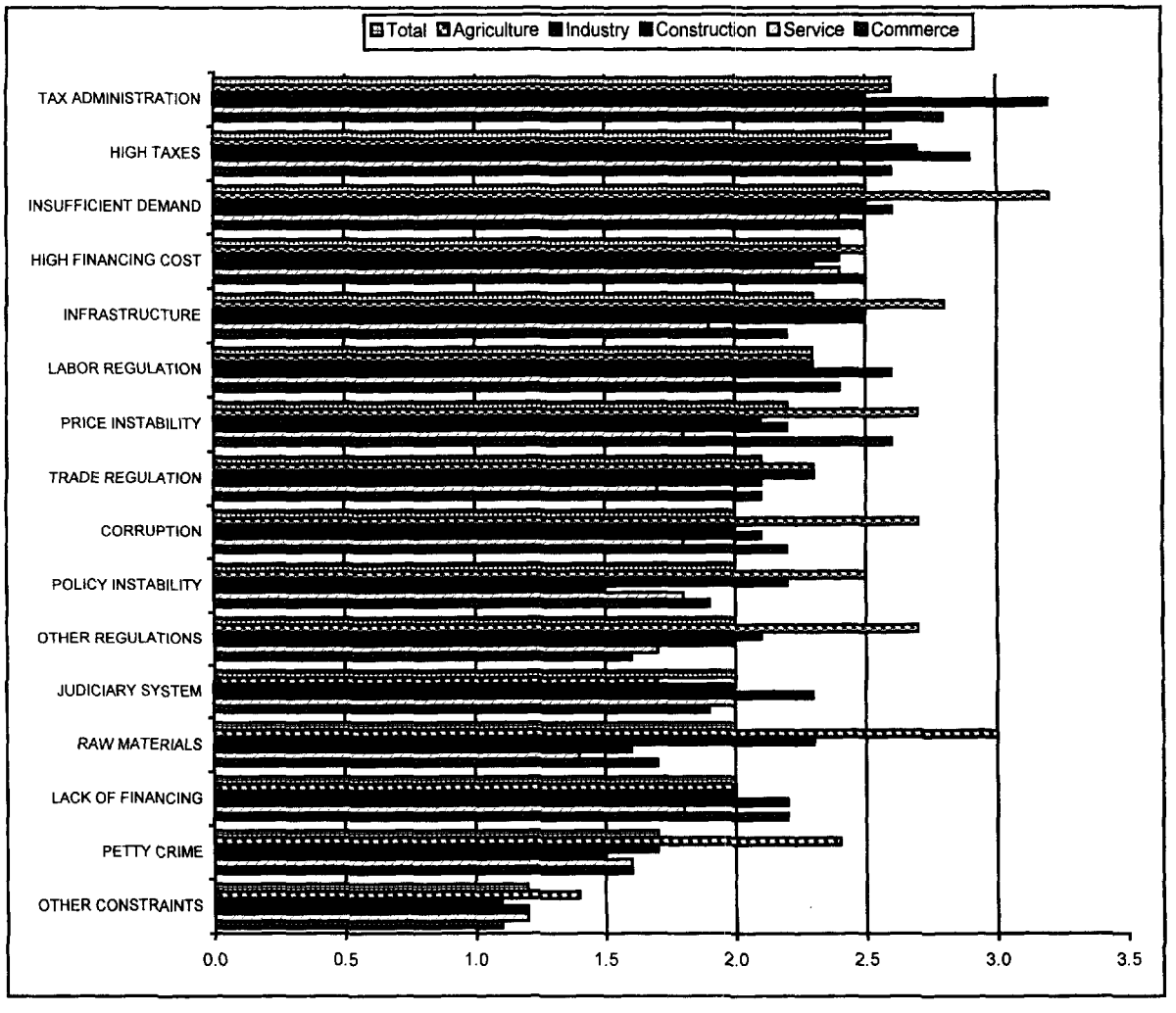

Total
Small
Medium
Large
TAX REGULATION
HIGH TAXES
INSUFFICIENT DEMAND
HIGH FINANCING COST
INFRASTRUCTURE
LABOR REGULATION
PRICE INSTABILITY
EXTERNAL TRADE REGULATION
POLICY INSTABILITY
CORRUPTION
OTHER REGULATIONS
JUDICIARY SYSTEM
RAW MATERIALS
LACK OF FINANCING
PETTY CRIME
OTHER CONSTRAINTS
0
0.5
1
1.5
2
2.5
3

Figure 3.3



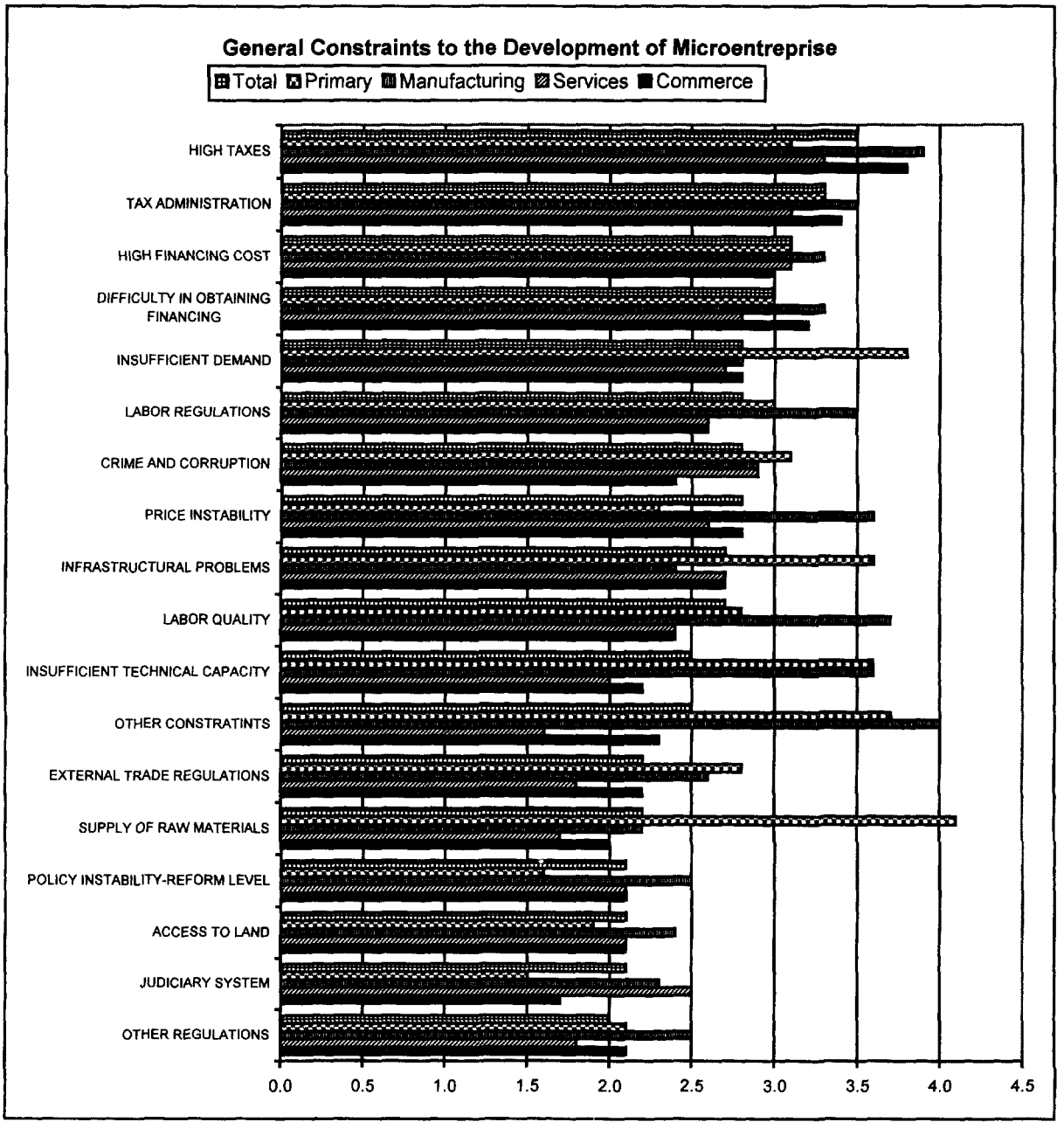
A closer look at the constraints by firm size reveals that high taxes is a concern for all firm sizes, while tax regulations and administration are key issues for medium and large firms. High financing costs are considered by SMEs as one of the most binding constraints. The latter is an interesting finding which adds a new dimension to the results of some of the previous surveys. The latter had found that access to finance, rather than financing costs were important constraints to private investment (see Box) It reveals the fact that large firms, perhaps due to their lower perceived financing risks, have access to cheaper funds (the rates being defined as the money-market rate plus a margin) than small firms (see the Chapter on access to finance). It is also interesting to note that infrastructure constraints, mainly telecom costs, transport costs, and access to industrial land, present relatively more severe problems for medium and large firms than small firms.

Table 3.3: Main Constraints to Private Sector Activity by Firm Size

Overall	Small Firms	Medium Firms	Large Firms
Tax regulations	High taxes	Tax regulations	Tax regulations
High taxes	High cost of finance	Insufficient demand	High taxes
Insufficient demand	Insufficient demand	High taxes	Insufficient demand
High cost of finance	Labor regulations	High cost of finance	Infrastructure
Infrastructure	Access to finance	Infrastructure	Price instability/external trade procedures

The nature of constraints for microenterprises are not very different from that of SMEs. Their key concern is high taxes and tax regulations, followed by cost of and access to finance, and insufficient demand.

Figure 3.4



Responses to the open-ended question

An open-ended question on current constraints casts a different light on these problems. The leading constraint to current enterprise operations is market demand and competition, which may be greatly intensified by liberalization. In effect, many of the enterprises surveyed had concerns about opening up to the EU competition: about 60 percent of the onshore firms interviewed expressed serious concern about the up-coming competition from EU imports. Some of these enterprises stated that they hesitate to make major investments, except for the investments encouraged under the mise a niveau program, in the current circumstances. The second leading constraint deals with administration, which may in part be taken to include problems of tax administration and other bureaucratic incursions on the operation of firms. This is a leading problem for offshore enterprises. The third problem is concerned with procurement (*approvisionnement)* -- availability of inputs, equipment maintenance and technical services, distribution delays. This is the second leading problem for offshore enterprises. The next leading constraint concerns financing and exchange, followed by the quality of labor (when combined with concerns about productivity and absentism this constraint rises in importance) and infrastructure. The problem of debt recovery, which is lumped together with market demand and competition, is highlighted by 20 percent of all the firms interviewed, suggesting problems with credit information and enforcement.

Table 3.4 - General constraints mentioned by firms according to the size-Micro-enterprises not included

	Size of firm						Total	
	Small		Medium		Large			
	Number	%	Number	%	Number	%	Number	%
Market, competition and commercialization	19	37.3	62	59.0	50	49.0	131	50.8
Narrowness of market ; weakness of demand	11	21.6	28	26.4	24	23.3	63	24.2
Unfair competition	4	7.8	29	27.4	18	17.5	51	19.6
Problems with payments and recovery	14	27.5	23	21.7	15	14.6	52	20.0
Problems with prices			1	0.9	3	2.9	4	1.5
Corruption	1	2.0					1	0.4
Administration	24	47.1	45	42.9	48	47.1	117	45.3
Administration	13	25.5	26	24.5	24	23.3	63	24.2
Customs	5	9.8	9	8.5	10	9.7	24	9.2
High taxes	3	5.9	4	3.8	1	1.0	8	3.1
Bureaucracy	1	2.0	1	0.9	3	2.9	5	1.9
Regulation			2	1.9	1	1.0	3	1.2
Supplies	24	47.1	32	30.5	42	41.2	98	38.0
Availability of raw materials	14	27.5	18	17.0	23	22.3	55	21.2
Supplies	7	13.7	9	8.5	10	9.7	26	10.0
Equipment and maintenance	1	2.0	2	1.9	1	1.0	4	1.5
Delays and distribution	2	3.9	2	1.9	3	2.9	7	2.7
Suppliers	2	3.9	2	1.9	2	1.9	6	2.3
Financing and foreign exchange	27	52.9	46	43.8	30	29.4	103	39.9
Financing	7	13.7	11	10.4	7	6.8	25	9.6
Banks and insurance	6	11.8	12	11.3	8	7.8	26	10.0
Labor	12	23.5	16	15.2	27	26.5	55	21.3
Shortage of skilled labor	8	15.7	12	11.3	20	19.4	40	15.4
Absenteeism	1	2.0	13	12.3	11	10.7	25	9.6
Low productivity; low production and quality	2	3.9	3	2.8	8	7.8	13	5.0
High labor costs	2	3.9	1	0.9	3	2.9	6	2.3
Training of staff	2	3.9	3	2.8	4	3.9	9	3.5
Infrastructure	3	5.9	12	11.4	8	7.8	23	8.9
Infrastructure	3	5.9	12	11.3	6	5.8	21	8.1
Problems with offices and buildings					2	1.9	2	0.8
Environment	1	2.0	3	2.8	9	8.7	13	5.0
Miscellaneous	4	7.8	13	12.4	11	10.8	28	10.9
Imports	1	2.0	2	1.9	2	1.9	5	1.9
Exports	2	3.9	3	2.8	1	1.0	6	2.3
Others	1	2.0	8	7.5	8	7.8	17	6.5
Total	51	100.0	105	100.0	102	100.0	258	100.0

Table 3.5: General constraints mentioned by firms according to the sector
Micro-enterprises not included

	Sector										Total	
	Agriculture		Industry		Construction		Services		Commerce			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Market, competition and commercialization	10	45.5	76	62.3	6	40.0	29	40.8	10	35.7	131	50.8
Narrowness of market and weakness of demand	7	31.8	32	25.8	3	20.0	15	21.1	6	21.4	63	24.2
Unfair competition	1	4.5	34	27.4	3	20.0	10	14.1	3	10.7	51	19.6
Problems with payments and recovery	3	13.6	20	16.1	5	33.3	15	21.1	9	32.1	52	20.0
Problems with prices			4	3.2							4	1.5
Corruption									1	3.6	1	0.4
Administration	9	40.9	53	43.4	6	40.0	39	54.9	10	35.7	117	45.3
Administration			30	24.2	4	26.7	24	33.8	5	17.9	63	24.2
Customs			16	12.9			4	5.6	4	14.3	24	9.2
High taxes			3	2.4			5	7.0			8	3.1
Bureaucracy	1	4.5	1	0.8	1	6.7	2	2.8			5	1.9
Regulation			2	1.6	1	6.7					3	1.2
Supplies	12	54.5	46	37.7	6	40.0	28	39.4	6	21.4	98	38.0
Availability of raw materials	5	22.7	24	19.4	6	40.0	18	25.4	2	7.1	55	21.2
Supplies	6	27.3	10	8.1			7	9.9	3	10.7	26	10.0
Equipment and maintenance	1	4.5	2	1.6			1	1.4			4	1.5
Delays and distribution	2	9.1	4	3.2			1	1.4			7	2.7
Suppliers			2	1.6			3	4.2	1	3.6	6	2.3
Financing and foreign exchange	3	13.6	45	36.9	7	46.7	34	47.9	14	50.0	103	39.9
Financing			12	9.7	1	6.7	9	12.7	3	10.7	25	9.6
Banks and insurance			13	10.5	1	6.7	10	14.1	2	7.1	26	10.0
Labor	5	22.7	25	20.5	1	6.7	14	19.7	10	35.7	55	21.3
Shortage of skilled labor	4	18.2	19	15.3	1	6.7	10	14.1	6	21.4	40	15.4
Absenteeism			20	16.1	1	6.7	4	5.6			25	9.6
Low productivity; low production and quality			10	8.1			2	2.8	1	3.6	13	5.0
High labor costs			3	2.4			2	2.8	1	3.6	6	2.3
Training of staff	1	4.5	3	2.4			2	2.8	3	10.7	9	3.5
Infrastructure	2	9.1	11	9.0			7	9.9	3	10.7	23	8.9
Infrastructure	2	9.1	9	7.3			7	9.9	3	10.7	21	8.1
Problems with offices and buildings			2	1.6							2	0.8
Environment	8	36.4	1	0.8			4	5.6			13	5.0
Miscellaneous	1	4.5	14	11.5	2	13.3	10	14.1	1	3.6	28	10.9
Imports			3	2.4	2	13.3					5	1.9
Exports			3	2.4			3	4.2			6	2.3
Others	1	4.5	8	6.5			7	9.9	1	3.6	17	6.5
Total	22	100.0	124	100.0	15	100.0	71	100.0	28	**100.0**	**260**	**100.0**

Table 3.6: Constraints mentioned by firms according to the percentage of exported production
Micro-enterprises not included

	Exports in % of Output				Total	
	Less than 80%		>More than 80%			
	Number	%	Number	%	Number	%
Market, competition and commercialization	47	59.5	9	26.5	56	49.6
Narrowness of market and weakness of demand	21	26.6	7	20.0	28	24.6
Unfair competition	23	29.1	1	2.9	24	21.1
Problems with payments and recovery	13	16.5	1	2.9	14	12.3
Problems with prices	2	2.5			2	1.8
Administration	36	45.6	18	52.9	54	47.8
Administration	23	29.1	7	20.0	30	26.3
Customs	7	8.9	10	28.6	17	14.9
Bureaucracy	3	3.8			3	2.6
Supplies	30	38.0	12	35.3	42	37.2
Availability of raw materials	17	21.5	6	17.1	23	20.2
Supplies	6	7.6	2	5.7	8	7.0
Equipment and maintenance			1	2.9	1	0.9
Suppliers	1	1.3	1	2.9	2	1.8
Financing and foreign exchange	29	36.7	7	20.6	36	31.9
Financing	9	11.4	3	8.6	12	10.5
Banks and insurance	7	8.9	3	8.6	10	8.8
Labor	16	20.3	11	32.4	27	23.9
Shortage of skilled labor	14	17.7	6	17.1	20	17.5
Absenteeism	4	5.1	13	37.1	17	14.9
Low productivity; low production and quality	7	8.9	3	8.6	10	8.8
High labor costs			3	8.6	3	2.6
Training of staff	2	2.5	2	5.7	4	3.5
Infrastructure	5	6.3	9	26.5	14	12.4
Infrastructure	4	5.1	9	25.7	13	11.4
Problems with offices and buildings	1	1.3			1	0.9
Environment	2	2.5			2	1.8
Miscellaneous	13	16.5	2	5.9	15	13.3
Imports	2	2.5			2	1.8
Exports	3	3.8	1	2.9	4	3.5
High taxes	1	1.3	1.0	2.9	2.0	1.8
Others	8	10.1	1.0	2.9	9.0	7.9
Total	79	100	35	100	114	100

Table 3.7: General constraints mentioned by micro-enterprises according to the sector

	Sector								Total	
	Primary		Manufacturing		Services		Commerce			
	Number	%	Number	%	Number	%	Number	%	Number	%
Market, competition and commercialization	1	14.3	10	66.7	18	56.3	16	66.7	45	57.7
Narrowness of market and weakness of demand			6	40.0	12	37.5	7	29.2	25	32.1
Unfair competition	1	14.3	2	13.3	4	12.5	8	33.3	15	19.2
Problems with payments and recovery			3	20.0	5	15.6	5	20.8	13	16.7
Problems with prices			2	13.3			1	4.2	3	3.8
Corruption					1	3.1			1	1.3
Administration	6	85.7	2	13.3	19	59.4	8	33.3	35	44.9
Administration					10	31.3	2	8.3	12	15.4
Customs					1	3.1	2	8.3	3	3.8
High taxes					5	15.6	1	4.2	6	7.7
Bureaucracy			1	6.7	1	3.1	2	8.3	4	5.1
Regulation					1	3.1	1	4.2	2	2.6
Supplies	6	85.7	10	66.7	18	56.3	13	54.2	47	60.3
Availability of raw materials			3	20.0	6	18.8	2	8.3	11	14.1
Supplies			2	13.3	7	21.9	7	29.2	16	20.5
Equipment and maintenance	4	57.1	4	26.7	5	15.6	2	8.3	15	19.2
Delays and distribution					2	6.3			2	2.6
Financing and foreign exchange			6	40.0	10	31.3	9	37.5	25	32.1
Financing			3	20.0	3	9.4	4	16.7	10	12.8
Banks and insurance					2	6.3			2	2.6
Labor					2	6.3	2	8.3	4	5.1
Shortage of skilled labor					1	3.1	2	8.3	3	3.8
Absenteeism					1	3.1	1	4.2	2	2.6
Low productivity; low production and quality	2	28.6	1	6.7			2	8.3	5	6.4
High labor costs					1	3.1			1	1.3
Infrastructure			1	6.7	4	12.5	4	16.7	9	11.5
Infrastructure			1	6.7	3	9.4	3	12.5	7	9.0
Environment	6	85.7	1	6.7					7	9.0
Others					1	3.1			1	1.3
Total	7	100.0	15	100.0	32	100.0	24	100.0	78	100.0

Administrative and Regulatory Constraints. With respect to business start-ups, the administrative procedures, and the time required to comply with these procedures, do not seem to present a constraint to private enterprises.[1] Various measures put in place by the Government facilitate business start-up: API's one-stop-window (*guichet unique*) has streamlined (in one location) many of the administrative procedures for investments in industry and industry-related services; the information on different incentives and policies dealing with private investment is readily available to investors by API and the MCIIE; and the required forms that need to be completed are relatively simple.[2]

However, the remaining administrative issues involve: (a) the multiplicity of investment regimes; and (b) the large number of Ministries and government agencies, documentation, and steps involved in the process of business start-ups.[3] The PriceWaterhouseCoopers (1999) study gives a sense of the extent of delays resulting from these bottlenecks, based on a survey of 33 American investors (Table). In addition, while access to industrial sites does not seem to present a major difficulty for investors[4] (except for issues discussed under infrastructure constraints in this section), there is scope for improvement in one area noted by the enterprises with foreign participation/ownership: Difficulties in land acquisition by foreign investors (for example, Governor's authorization requirement, and the absence of an up-dated land registry system).

Table 3.8: Delays caused by administrative procedures for business start-up

Sector	Required Time
Agro-industry	Up to 3 months
Manufacturing	Up to 6 months
Pharmaceuticals	1-4 months
Commerce	1-3 months
Hydrocarbon and energy	1-6 months
Tourism	3 months
Others	2-8 weeks
Average	10 weeks

Source: The PriceWaterhouseCoopers (1999), page 49

As far as business operations are concerned, as noted among the general constraints, high taxes impose the leading constraint in terms of regulatory interactions between business and government. The detailed questions focus on constraints to current operation and growth, which may account for very slight inconsistencies in ranking. Construction firms stand out in their ranking of both taxes and tax regulations, as well as their evaluation of labor and trade regulations, all of which are judged to be "moderate" constraints. Interestingly, construction firms report paying higher average tariffs on their imports than do other sectors, suggesting that direct costs imposed by the regime may account for the constraint score.

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1 For details of these procedures, see PriceWaterhouseCoopers (1999), "Etudes des attentes des entreprises nord-americaines en Tunisie quant aux formalites d'investissement", Rapport Provisioire, prepared in collaboration with The Services Group, and financed by USAID, for MCIIE.

2 However, the investors must respond to some of the same questions which is replicated in several forms. For example, the *fische d'information du CEPEX* contains the same information that appears in the Customs forms for imports. The same is the case for the information provided to the *Inspection du Travail* and CNSS (*Caisse Nationale de Securité Sociale*).

3 Nine out of 33 American enterprises surveyed for the PriceWaterhouseCoopers study, have noted these issues as major constraints.

4 According to PriceWaterhouseCoopers study, Tunisia is competitive compared to Jordan and Morocco with respect to the average time required to prepare and equip the land (3.5 months), connecting to telecom services (4 months), acquiring construction permit (one month). The time taken for water (2 months) and electricity (2 months) connection, however, is more in Tunisia than in the other two countries.

Agricultural firms stand out in their difficulties with price controls and investment regulations, which must have a sector-specific nature. Similarly, construction firms are disproportionately constrained by the process of obtaining permits and licenses, and to a lesser extent by customs procedures for exports.

Table 3.9: Regulatory Constraints
(scale : 1=no obstacle, 3=moderate, 5=Very severe obstacle)

Regulatory constraints	Small	Medium	Large	Agric.	Indust.	Con-struct.	Ser-vices	Com-merce	Overall Mean
High Taxes	2.56	3.05	2.90	2.90	2.95	3.33	2.78	2.65	2.88
Taxes regulations	2.30	2.55	2.45	2.63	2.47	3.00	2.47	2.07	2.46
Gov't Labor Regulations	2.29	2.23	2.14	2.26	2.23	3.00	2.11	2.03	2.22
Labor unions restrictions	1.52	2.44	2.26	2.26	2.39	2.30	1.85	1.82	2.16
Customs regulations on imports	2.00	1.89	2.17	1.50	1.98	2.63	1.94	2.32	2.01
Obtaining Permits/authorizations	2.07	1.97	1.90	1.82	1.72	3.00	2.27	2.00	1.97
Price Control on final products	1.39	2.13	2.00	3.29	1.98	2.22	1.48	1.42	1.91
Investment regulations	1.78	1.95	1.83	2.71	1.74	2.20	1.80	1.52	1.86
Costs of Permits/authorizations	1.37	1.60	1.80	1.90	1.61	2.00	1.44	1.73	1.61
Price Control on raw products	1.27	1.54	1.63	2.47	1.48	1.70	1.28	1.37	1.50
Customs regulations on exports	1.12	1.43	1.63	1.82	1.43	1.29	1.24	1.74	1.43

While construction firms report paying slightly higher duties than other firms, "offshore" firms report dramatically lower duties. The average for this group of firms is 7.2 percent, while exporters not in this category report paying an average import duty of almost 20 percent.

The finding on tax-related constraints is surprising , since the Tunisian tax system is relatively simple, with a relatively small number of tax brackets. In addition, tax rates do not seem to be high by international standards. One area for improvement seems to be tax administration and formalities for SMEs. Compliance to accounting and book-keeping rules are difficult for small enterprises who would need expert services from lawyers and accountant for this purpose.

Another key findings is administrative delays involved in imports. Enterprises concerned with import operations, in large part as inputs into export production, spend an average of 21.2 days for completing all the required steps. This delay is specifically substantial for the small enterprises of the sample (32.8 days). The waiting period for the letter of credit is the longest (Table).

Table 3.10: Average Number of Days to Complete Import-Related Transactions

	Size of the Enterprise			
	Small	**Medium**	**Large**	**Total**
Letter of credit	9,2	5,0	5,2	5,7
Loading on the ship	2,1	1,8	2,5	2,1
Discharge	3,5	2,3	4,5	3,3
Customs	8,1	4,7	4,0	4,9
Release from port	5,7	2,5	2,5	3,0
Inspection	4,2	2,7	3,4	3,2
Total	32,8	19,0	22,1	22,1

Market Conditions and Competitiveness. Table below confirms that weakness and/or instability of demand imposes a moderate constraint to Tunisian firms. As a current operational obstacle, it grows slightly in importance with firm size. Foreign competition is also most acutely felt by larger firms, although it ranks as only a minor constraint. Industrial firms clearly stand out in their concern about foreign competition. Interestingly, it is construction and agricultural firms, which have the lowest percentage of export sales that feel most acutely constrained by the lack of foreign contacts for exports. In other areas, the only moderate constraint is for agricultural firms, who find government contracting problems to be their single leading constraint in this area.

Table 3.11: Procurements and Sales Constraints

	Small	Medium	Large	Agric.	Indust.	Con-struct.	Ser-vices	Com-merce	Overall Mean
Weakness /Instability of Demand	2.58	2.70	2.80	2.44	2.70	2.85	2.77	2.67	2.70
Low Prices of Foreign Competitors	1.86	2.37	2.47	2.17	2.48	2.00	2.02	2.18	2.30
Lack of Foreign Contacts for Exports	2.02	2.17	2.19	2.67	2.12	2.54	1.97	1.89	2.15
Problems to delivering on time	1.98	2.15	2.13	2.17	2.07	1.90	2.14	2.24	2.11
Lack of competition betw. Main suppliers of inputs	1.88	2.10	2.17	1.94	2.30	2.23	1.57	1.85	2.07
Exchange Rate problems	1.73	2.10	2.12	1.56	2.13	2.20	2.02	1.89	2.04
Foreign Obstacles to Exports	1.34	2.14	2.19	2.33	2.14	1.88	1.72	1.42	1.98
Government's Contracts Problems	2.17	1.84	1.86	2.76	1.66	2.15	2.17	1.72	1.92
Products'Quality Problems	2.06	1.98	1.72	2.05	1.92	1.55	1.84	1.96	1.90
Customs System	1.56	2.03	1.86	1.41	2.05	2.00	1.60	1.89	1.87
Insufficient Supply Problems	1.64	1.84	1.79	1.89	1.89	1.42	1.50	1.82	1.78
Low Tariffs (ZLE Tunisia-EU)	1.44	1.83	1.67	1.76	1.89	1.44	1.36	1.38	1.70

However, another indicator suggest that small and medium-sized firms are struggling with market conditions. Their reported capacity utilization rate is 67 percent and 68 percent respectively, while large firms report a rate of 78 percent. Offshore firms and firms in agriculture report a similarly high rate of capacity utilization, while non-exporters and firms in construction and commerce report lower rates of capacity utilization.

This superior market performance of exporting and larger firms is further confirmed by firm's estimates of their gain or loss of market share over the past three years. In general, larger firms and offshore firms identify higher gains in market share than smaller firms and those more linked to domestic markets. Large firms estimate that they enjoy an average of 38 percent market share in their leading products, mediume firms 37 percent, while small firms report an average 28 percent market share. Industrial firms report enjoying an astonishing 43 percent market share, suggesting the limited market size and competition in manufactured goods in Tunisia.

Table 3.12: Sources of Unfair Competition
(scale: 1=no obstacle, 3=moderate, 5=very severe obstacle)

Unfair Competition	Small	Medium	Large	Agric.	Indust.	Constr	Services	Comm	Overall Mean
Firm's rivals avoid sales tax or other	3.58	3.79	3.28	3.29	3.84	3.55	3.03	3.71	3.59
Firm's rivals do not pay duties/violate trade	3.95	3.79	3.29	3.75	3.80	3.25	3.39	3.96	3.69
Rivals sell below market prices	3.58	3.90	3.69	4.43	3.76	3.75	3.88	3.44	3.77
Firm's rivals avoid labor taxes/regulations (soc. security)	3.19	3.29	3.08	3.50	3.21	3.33	3.18	3.00	3.20
Firm's rivals violate copyrights, patents or trademarks	2.13	1.98	1.88	2.00	1.93	2.30	2.00	2.11	1.99
Rival firms act to limit my access to credit, supplies, land, etc.	1.72	1.71	1.49	1.00	1.59	1.82	1.69	1.90	1.65
Rivals work illegally with suppliers to prevent me to obtain contracts	2.16	2.05	1.92	1.50	1.80	2.82	2.48	2.00	2.04
Rivals limit my access to inputs imports	1.42	1.67	1.90	1.40	1.78	1.70	1.52	1.63	1.66

One aspect of market conditions clearly stands out in the minds of Tunisian firms: informal competition. Some 65 percent of firms say they confront problems with illegal or unfair competition. This was more common for small and medium firms, and far less common for firms who primarily export ("offshore"). Firms rate three types of informal competition as imposing a "major" constraint: rivals who avoid taxes, rivals who evade duties and trade regulations, and rivals who sell at "below market prices". The first two of these suggest a perception that there are other firms not bound by the same rules as they are. Firms in industry and commerce feel both these constraints most acutely, while agriculture firms are especially concerned about rivals' evasion of duties. Agricultural firms are also somewhat more constrained by rivals' evasion of labor regulation.

This finding suggests that there are sufficient incentives or opportunities created by the regime of taxes and regulations to encourage serious evasion of them, and that law-abiding firms feel substantially disadvantaged by this competition. Whether this is because existing policies are essentially protective in nature or simply costly to comply with, informal competition poses one of the highest ranked constraints evaluated in the survey. In spite of concerns about competitors evading duties, most firms did not regard themselves as threatened by the lowering of tariffs embodied in the free trade agreement with the European Union. 62 percent though it would have no effect; 21 percent thought it would enhance their market share, and only 17 percent thought it would result in their losing market share.

Firms are taking a number of measures to respond to competition (both formal and informal). By far the most frequent measure identified has been to reduce costs through stronger human resource management. The second most common step general upgrading of productivity through "mise a niveau". "Mise a Niveau" was the most common response for offshore firms. Interestingly, improving the quality of products and services, or lowering the prices of goods and services were far less common responses. However, small firms more commonly resonded by upgrading the quality of goods and services than did larger ones, while larger firms were much more likely to strengthen management, technology and production processes.

Figure 3.5

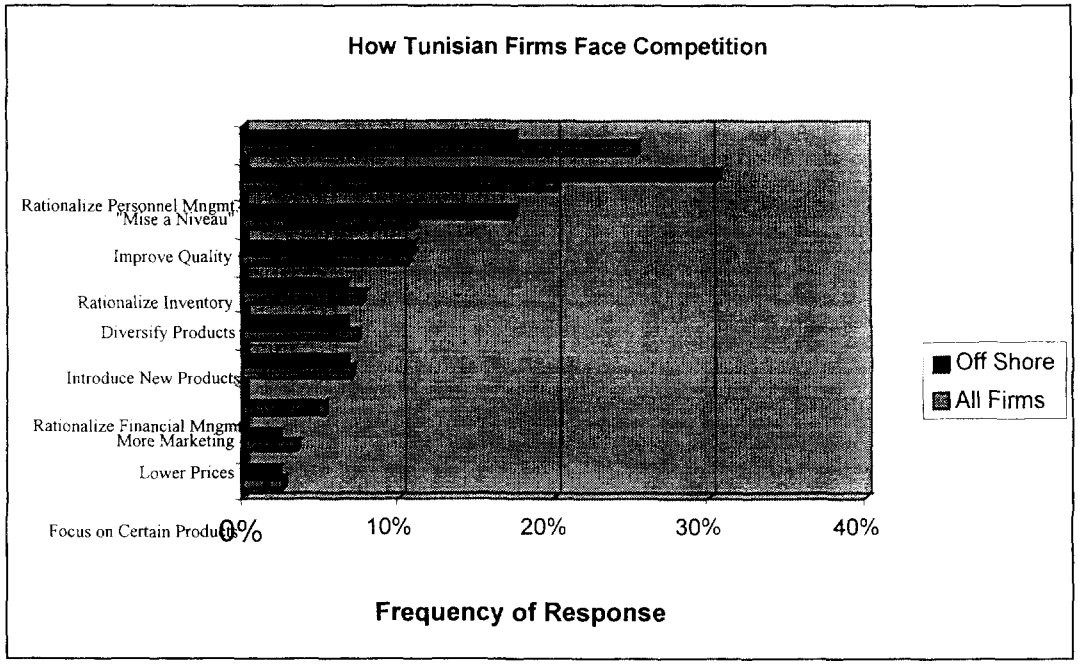


Table 3.13: Labor Constraints
(scale: 1=no obstacle, 3=moderate, 4=very severe obstacle)

Labor Constraints	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Lack skilled labor	2.51	2.72	2.91	3.18	2.89	2.27	2.49	2.54	2.74
Low productivity	2.46	2.56	2.88	2.90	2.67	2.90	2.41	2.81	2.65
Absenteism	2.57	2.60	2.58	2.60	2.77	2.50	2.27	2.56	2.59
Lack of managers/technicians	2.04	2.13	2.60	3.10	2.21	2.10	2.29	1.92	2.27
Inadeq. Skills of workers	2.08	2.30	2.30	2.50	2.25	2.40	2.27	2.00	2.25
Inadeq. Recruit. process	1.93	2.10	2.19	1.89	2.23	2.33	1.92	2.04	2.09
Regulations for local personnel	2.17	2.16	1.77	1.50	2.07	2.55	2.07	1.96	2.03
Cost of labor	2.16	1.99	1.91	2.00	1.94	2.70	2.07	1.83	2.00
Regulations for overseas personnel	1.68	1.87	1.90	1.41	1.86	1.88	2.09	1.42	1.84
Seasonal lack of unskilled labor	1.55	1.82	1.90	1.72	1.97	1.56	1.61	1.54	1.79
Restrictions of Labor unions	1.16	1.66	1.86	1.56	1.77	1.78	1.50	1.35	1.62

Labor is a key input to enterprise productivity and several attributes of labor concerned Tunisian enterprises. Lack of skilled labor and low productivity ranked as the highest constraints, and the rating of the severity of these constraints increases with firm size. Absenteeism is also generally perceived to be a problem. Lack of managers and technicians is more of a problem for large firms than for SMEs, and is esepcially constraining in the agricultural sector.

Most firms recruit their own workers – roughly 78 percent of SMEs do so. However, 44 percent of large firms use recruitment agencies or specialized services to find employees. Of those firms who use them, 73 percent are satisfied with the services, while 27 percent are not. Generally, however, recruitment efforts are not aggressive – the leading method is for candidates to appear at the firm seeking work. Large firms are much more likely than SMEs to rely on newpaper advertizements or using the Employment Office. Once employees are recruited, roughly three fourths of firms have no problems retaining them. But among firms in construction, worker retention is more difficult, with 42 percent of

firms having problems of worker retention. The leading reason given for difficulties in retaining employees is telling: the leave to work in the public sector. This is the leading reason for half of the firms in construction. Other reasons firms give are workers leaving due to low salaries, and leaving to work on their own. Worker retention is a much smaller problem for offshore firms, which do not report substantial worker loss to the public sector.

Layoffs and firing is much more common in construction than any other sector, followed by industry and services. It is rarer in commerce and agriculture. When workers are fired, 17 percent of cases are appealed before a labor tribunal. This did not occur for any of the small firms, and is most common among service and industrial firms. Offshore firms had little contact with labor tribunals. Firms were divided on the fairness of labor tribunals – 48 percent thought they were biased in favor of workers, while 43 percent said they decided each case according to its facts. However, only 2 percent thought the labor courts normally favored enterprises (employers). Large firms found the courts more biased towards workers than did smaller ones.

Finance The general constraint rankings described above indicate that Tunisian firms' financing does not appear to impose more than a minor constraint for most firms. However, for current operations, both the level of interest rates and collateral requirements impose moderate constraints. As might be expected, the collateral constraint declines in importance with firm size. Interest rates impose the greatest problem on medium-scale firms, which are also the firms most reliant on bank credit. Small firms find the paperwork and regulations related to financing somewhat more difficult than do larger firms, while agricultural firms are especially troubled by their lack of access to foreign banks (a somewhat surprsing result).

Table 3.14: Financing Constraints
(scale: 1=no obstacle, 3=moderate, 4=very severe obstacle)

Financing Constraints	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Level of Interest Rates	2.95	3.02	2.77	3.00	2.91	2.67	2.88	3.17	2.93
Collateral requirements of Fin. Inst	3.07	2.87	2.50	2.80	2.79	3.00	2.70	3.00	2.80
Excess of paperworks/regulations	2.65	2.44	2.06	2.13	2.29	2.82	2.36	2.65	2.37
Lack access to foreign banks	1.44	1.61	2.02	3.08	1.58	1.78	1.69	1.48	1.72
Lack short term financing	1.72	1.52	1.74	2.31	1.57	2.33	1.61	1.38	1.65
Lack access to lease finance for equipment	1.43	1.47	1.83	2.23	1.52	2.40	1.38	1.52	1.59
Need special connections with banks/Fin. Inst.	1.65	1.60	1.48	1.62	1.42	2.20	1.75	1.52	1.57
Lack access to equity investors or partners	1.44	1.41	1.84	2.08	1.51	1.70	1.64	1.26	1.57
Corruption of banks officials	1.51	1.51	1.68	2.53	1.58	1.67	1.26	1.44	1.56
Inadeq. Credit info. System	1.33	1.53	1.74	1.85	1.60	2.00	1.42	1.30	1.56
Cheques/financing transfers problems	1.51	1.56	1.56	1.62	1.59	1.80	1.54	1.23	1.55
Leasing problems	1.67	1.43	1.44	1.69	1.49	1.67	1.38	1.54	1.49
Access to equities	1.42	1.34	1.66	2.00	1.53	1.50	1.37	1.11	1.48
Lack of credit of banks	1.61	1.28	1.59	2.08	1.44	1.78	1.42	1.23	1.47
Lack of access to specialized export finance	1.15	1.34	1.81	2.08	1.53	1.60	1.27	1.14	1.47
Banks lack money to lend	1.23	1.28	1.43	1.69	1.29	2.00	1.20	1.17	1.32

Medium-scale enterprises appear to have at least equal access to commercial bank finance as do large ones, although small firms clearly derive less finance from this source. Traditional sources like family and friends and moneylenders are relatively unimportant, although it must be noted that equity finance is also relatively unknown.

Table 3.15: Sources of Financing

Sources of Financing	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Internal funds/retained earnings	71.85	59.97	63.09	72.36	58.01	61.14	67.82	72.06	63.85
Local commercial banks	15.61	27.50	24.53	11.95	28.98	19.29	23.91	12.65	23.67
Suppliers credit	4.70	5.03	1.62	3.32	3.86	5.64	1.39	8.82	3.81
Leasing arrangement	1.67	2.46	2.39	1.82	2.72	0.00	2.59	0.88	2.25
Investment Funds/special Dev. Finanace	1.52	1.03	3.64	4.55	1.86	8.93	1.52	0.00	2.01
Family/Friends	2.42	1.10	2.07	2.05	1.89	3.57	0.70	2.65	1.74
Other	0.58	1.16	1.14	0.91	0.59	0.00	1.33	2.35	1.01
Moneylenders, traditional or informal sources	0.81	1.37	0.22	0.91	1.23	1.43	0.06	0.59	0.80
Foreign Banks	0.00	0.23	1.30	2.14	0.53	0.00	0.42	0.00	0.53
Equity, sale of stock	1.06	0.17	0.00	0.00	0.55	0.00	0.25	0.00	0.33
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Views of the Government One striking outcome of the survey is the generally favorable view of government and its competence. The overwhelming majority of firms perceive the national government to be either very or slightly helpful (or, as translated, "useful") to businesses today, a tendency which has improved over the last three years from an already favorable rating. Over 80 percent of firms regard the government favorably, and this perception holds across size and sectoral categories. The only exception is a distinct minority of construction firms who regard the government as "very unhelpful".

Table 3.16: Local Government Intervention

Local Gov't Today	Small	Medium	Large	Agric.	Indust.	Construct.	Services	Commerce	Overall Freq.
Very useful	37.50	42.86	42.68	13.64	41.38	58.33	44.44	50.00	41.56
Slightly useful	33.93	26.67	28.05	27.27	30.17	16.67	30.16	26.67	28.81
Neutral	19.64	19.05	23.17	59.09	20.69	8.33	11.11	16.67	20.58
Slightly unuseful	3.57	5.71	3.66	0.00	5.17	0.00	4.76	6.67	4.53
Very unuseful	5.36	5.71	2.44	0.00	2.59	16.67	9.52	0.00	4.53
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Base	56	105	82	22	116	12	63	30	243

Table 3.17: Central Government Intervention in the Past

Central Gov't Past	Small	Medium	Large	Agric.	Indust.	Construct.	Services	Commerce	Overall Freq.
Very useful	42.37	52.73	47.19	34.78	52.07	46.15	46.38	50.00	48.45
Slightly useful	32.20	25.45	28.09	56.52	23.97	30.77	28.99	18.75	27.91
Neutral	20.34	11.82	17.98	8.70	16.53	7.69	14.49	25.00	15.89
Slightly unuseful	1.69	6.36	2.25	0.00	3.31	0.00	5.80	6.25	3.88
Very unuseful	3.39	3.64	4.49	0.00	4.13	15.38	4.35	0.00	3.88
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Base	59	110	89	23	121	13	69	32	258

Table 3.18: Central Government Intervention Today

Central Gov't Today	Small	Medium	Large	Agric.	Indust.	Construct.	Services	Commerce	Overall Mean
Very useful	50.00	60.68	53.26	47.83	62.10	58.33	51.95	45.71	55.72
Slightly useful	30.65	22.22	26.09	30.43	21.77	33.33	25.97	31.43	25.46
Neutral	12.90	8.55	15.22	21.74	11.29	0.00	10.39	14.29	11.81
Slightly unuseful	3.23	5.13	3.26	0.00	4.03	0.00	5.19	5.71	4.06
Very unuseful	3.23	3.42	2.17	0.00	0.81	8.33	6.49	2.86	2.95
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Base	62	117	92	23	124	12	77	35	271

Similarly, local government is viewed as helpful or very helpful by a substantial majority of firms, although slightly fewer, and its performance has slightly improved over the past three years. Again, a distinct minority of construction firms strongly disagree with this perception.

In most contexts, government is not regarded as very interventionist. Two exceptions are noteworthy: agricultural firms say government "sometimes" intervenes through fixing prices, while industrial firms find that government "sometimes" intervenes with regard to their dividends.

Figure 3.6

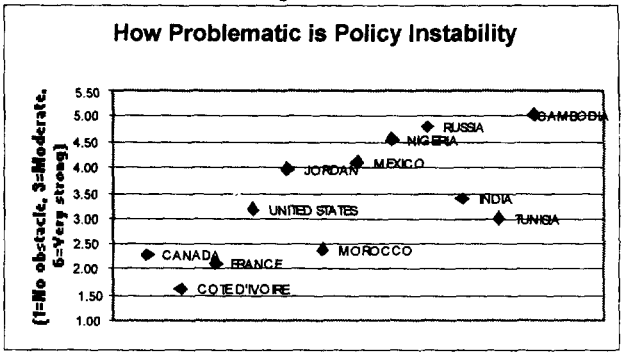


Table 3.19: Government Intervention
(scale: 1=always, 3=frequently, 6=never)

Gvt Intervention	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Investment	4.94	4.92	5.16	5.45	4.91	4.92	4.87	5.35	5.00
Hiring Process	5.13	5.15	5.30	5.48	5.26	4.58	5.04	5.32	5.19
sales	5.55	5.40	5.51	5.00	5.41	5.67	5.57	5.71	5.47
Price Fixation	4.94	5.11	5.07	4.05	5.24	5.58	4.92	5.19	5.06
Mergers/acquisitions	5.55	5.58	5.48	5.45	5.66	5.90	5.30	5.61	5.54
Dividends	5.17	4.42	4.94	5.73	4.12	5.62	5.54	4.48	4.77

Along several dimensions the general policies of the Tunisian government are favorably regarded. Policy instability, regarded by firms as "moderate", nonetheless places Tunisia among the more stable of policy environments, compared to a variety of countries surveyed for the 1997 World Development Report. Tunisia compares even better internationally when compared for the predictability of changes in laws and policies, which were evaluated as "fairly predictable."

One striking finding of the survey is that petty corruption appears to be fairly rare in Tunisia. The figure below shows more countries with low frequencies of bribery as higher (more "honest"), and Tunisia rates a 5.0 out of 6.0. This is a strikingly low incidence of reported bribery. Bribery appears slightly more common with regard to customs transactions and obtaining government contracts, but even for commercial firms who deal with customs most frequently, it is on average described as "seldom" occuring.

Figure 3.7

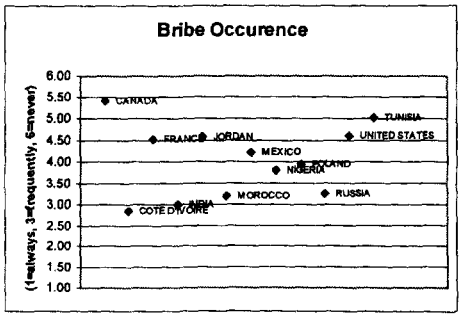


Table 3.20: Bribes for Public Services
(scale: 1=always, 3=frequently, 5=seldom, 6=never)

Bribes for Publics Services	Small	Medium	Large	Agric.	Indust.	Construct.	Services	Commerce	Overall Mean
water, elect, Tel	5.55	5.56	5.66	5.41	5.74	5.09	5.57	5.38	5.59
Licenses and Permits	5.35	5.37	5.66	5.55	5.62	4.64	5.34	5.35	5.50
Taxes collection	5.36	5.39	5.73	5.09	5.68	5.10	5.42	5.41	5.50
Obtaining Govt contracts	5.19	5.37	5.73	5.64	5.61	5.11	5.29	5.15	5.45
Customs services	4.98	5.24	5.52	5.62	5.29	6.00	5.15	5.09	5.28
Other	5.30	5.09	5.48	5.54	5.22	5.50	5.36	5.06	5.28

Most government services are given a favorable rating by businesses (table 7), although there are some notable differences. Public health/hospitals rank the lowest among government services. Customrs rates the second weakest, and gets an average negative rating from construction firms. Ccurts of justice and the roads department are both rated as only slightly good.

Table 3.21: Efficiency and Quality of Public Services
(scale: 1=no obstancle, 3=moderate, 5=very severe obstacle)

Effic./Quality Public serv.	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Public Health/hospitals	3.05	3.09	2.77	2.65	3.10	3.00	2.76	3.10	2.97
Customs	3.02	2.82	2.59	2.25	2.77	3.60	2.95	2.65	2.78
Roads Department	2.79	2.85	2.61	2.95	2.72	2.64	2.82	2.61	2.75
Courts of Justice	2.69	2.71	2.67	2.16	2.89	2.82	2.53	2.61	2.69
Water/Sewerage Services	2.46	2.60	2.30	2.43	2.68	2.33	2.18	2.42	2.46
Education Services/schools	2.52	2.57	2.28	2.37	2.49	2.45	2.46	2.40	2.46
Telephone Services	2.26	2.38	2.24	1.86	2.35	2.17	2.46	2.09	2.30
Postal Services	2.30	2.25	2.30	2.00	2.33	1.92	2.36	2.24	2.28
Electric Power Company	2.11	2.37	2.08	1.90	2.33	2.18	2.18	2.06	2.21
The Police	2.48	2.24	1.64	1.80	2.03	2.10	2.17	2.31	2.09
The Parliament	2.21	1.97	1.57	1.50	1.90	2.11	2.00	1.78	1.88
The armed forces	2.05	1.64	1.34	1.38	1.55	1.71	1.77	1.85	1.63
The Central Gov't	1.98	1.65	1.36	1.33	1.58	1.43	1.76	1.77	1.62

very good, 3= slightly good, 4=slightly bad, 6=very bad

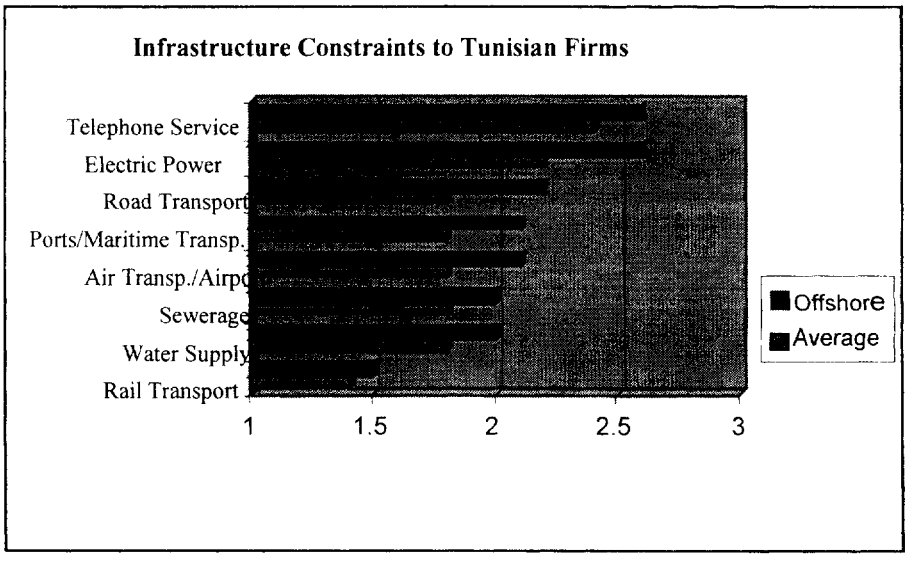
Table 3.22: Legal System
(scale: 1=always, 3=frequently, 5=seldom, 6=never)

Legal System	Small	Medium	Large	Agric.	Indust.	Construct	Services	Commerce	Overall Mean
Quick	5.04	4.61	4.29	4.00	4.31	4.80	4.96	5.20	4.61
Consistent/Reliable	4.72	4.36	4.04	3.57	4.36	4.73	4.46	4.31	4.34
Affordable	4.48	4.36	4.19	4.17	4.23	4.73	4.26	4.80	4.33
Honest/Uncorrupt	3.90	4.45	3.79	3.65	4.32	5.27	3.78	3.77	4.09
Are Decisions Enforced?	4.13	4.14	3.44	3.91	3.78	4.27	4.00	3.97	3.90
Fair/Impartial	2.71	2.42	2.10	1.76	2.43	2.67	2.58	2.00	2.38

A closer look at the legal system suggests that there in perception between different firms, but the overall perception is negative. Courts and the justice system are regarded as seldom quick and only sometimes consistent and reliable. Firms in construction appear to have the worst overall perception of the justice system. Nonetheless, information on government support services to businesses suggest that legal services are not especially constraining to the operation and growth of firms day-to-day.

Although **infrastructure** services were not, in general, identified as more than a minor constraint, the firms that export the most find the greatest grounds for complaint. Offshore firms, exporting greater than 80 percent of their sales, found both telephone service and electric power supply to be "moderate" constraints and found transportation services more constraining than did other firms.

Figure 3.8



Business Services In general, a lack of information on foreign suppliers, lack of information on business opportunities, and lack of competent repair services each impose a moderate constraint on the firms in the Tunisian sample. Agricultural firms were especially concerned about the availability of information on foreign suppliers.

Table 3.23: External Support Services
(scale: 1=no obstacle, 3=moderate, 5=very severe obstacle)

External Support	Small	Medium	Large	Agric.	Indust.	Construct.	Services	Commerce	Overall Mean
Lack of info. on foreign suppliers	2.33	2.85	3.03	3.61	2.95	2.50	2.34	2.52	2.80
Lack of info. on firm's business opportunities	2.54	2.78	2.71	3.28	2.70	2.83	2.48	2.67	2.70
lack of competent repair services	2.00	2.53	3.04	3.88	2.73	2.90	2.11	2.08	2.60
Lack of adequate insurance services	1.78	2.22	2.82	4.00	2.22	2.80	2.07	2.13	2.35
Lack of info. on local suppliers/subcontractors	2.29	2.40	2.30	2.63	2.41	3.18	1.86	2.35	2.34
Lack of mngmt advisers	1.91	2.31	2.48	2.63	2.41	2.20	2.06	2.08	2.28
Lack of external capacity	1.59	2.22	2.66	2.56	2.40	2.50	1.79	2.09	2.25
Lack of competent judiciary services	1.88	1.72	1.84	1.80	1.80	2.30	1.78	1.59	1.80
Lack of external audit services	1.48	1.64	2.11	2.27	1.83	1.50	1.72	1.52	1.78

Conclusion

Tunisian firms appear to enjoy fairly good operating conditions. They benefit from stable and predicable public policy, and many are competing well in international markets. Only when one takes a dynamic perspective of how firms will meet new competitive challenges does an agenda for further reform begin to emerge. As markets become more fully integrated with the European Union and protection diminishes, even moderate constraints of today may become competitive drags of tomorrow. Among the areas that merit further examination are the costs imposed by the tax regime, and the cost and availability of finance. In the financial arena, the lack of access to equity finance will clearly disadvantage larger firms

in the long run. Perhaps more important, small and medium enterprises are not be making the same adjustments and preparations for the future that their larger counterparts are. As might be expected, they are far less oriented towards export markets. But they are also slower to upgrade technology and management practices, and less aware of the need to do so. Preparing SMEs for future competitive challenges may form a critical priority for PSD strategy. Offshore firms, apparently at the cutting edge of competitiveness, find constraints in Tunisia's transport infrastructure, and in telephone and electric power services. Clearly, infrastructure policies must encourage constant upgrading to maintain Tunisia's competitiveness.

Surveys of Emerging Exporters

Two surveys have been conducted to shed light on the constraints to competitiveness and export development of potential and emerging exporters. A Bank team in June 1998 conducted an interview-based survey of 30 firms, covering partial and indirect exporters, mainly small and medium in the onshore sector, as well as a few firms in the offshore sector involved in subcontracting operations with foreign buyers. About half of the firms interviewed were in the textiles and clothing business. Although the number of firms interviewed was very small, the responses were consistent across firms, and consistent with the results of a second survey of 212 emerging exporters conducted by SCET Tunisie in November 1998. The results indicate the following:

A. The need for production and marketing assistance:

- Firms have made little investment to enter export markets (product quality, marketing, ...)
- Firms, especially SMEs in the onshore sector, have very limited export experience; they need assistance with information on potential markets and appropriate market segments, quality and price standards in these market segments, and potential supply chain intermediaries
- There is a weak overseas buyer connection. The majority of exports are to a single buyer, usually through subcontracting arrangements
- There is a weak exporter link to domestic producers

B. The need for preshipment export finance:

- The majority of the firms interviewed, in particular SMEs, expressed concerns about access to working capital for export production, even when they had confirmed letters of credit from foreign buyers

C. The need for simplifying export and import procedures:

- Multiple procedures and steps involved in trade activity; it takes on average 7 to 8 days for customs clearance of goods for a company that is a partial exporter. A competitor in France, supplying the same goods and services, can effect customs clearance within hours

D. The need to reduce transport and other infrastructure costs:

- Marine transport costs (to France or Germany) for a 20' container are highest in North Africa, and almost equal to transport costs from China and India to these markets

The IEQ Survey

A survey, conducted by the Institute of Quantitative Economics (IEQ) in 1996, covered 179 Tunisian firms operating in various manufacturing activities as well as in tourism. About half of these firms employed more than 200 workers and considered of relatively large size by Tunisian standards. The other

half employs between 20 and 200 persons. About a third of interviewed firms have the off-shore status. The results of this survey are summarized below.

Table 3.24: Main Obstacles of the Business Environment in Tunisia: IEQ Survey Results

Nature of the obstacle	Percentage of firms considering it very serious or fairly serious
High level of costs of production	76
Rigidity of administrative procedures	68
Low level of skills	61
Tough price competition	61
Difficulties of penetrating foreign markets	59
Strong competition on the local market	54
Weak local demand	50

Most respondents consider high factor costs as a very serious or fairly serious constraint. Seventy six percent of them thought that their high level represented a serious or fairly serious impediment to their activity. The second biggest constraint is red tape and the regulatory framework, according to 68 percent of the respondents. The low level of skills comes in third position, followed by difficulties encountered to penetrate foreign markets and increasing competition on the domestic market. Inadequate infrastructure and the high cost of international transportation were also mentioned as serious impediments to business.

The survey also contains questions concerning actions that the firm has taken or plans to take in order to face foreign competition following liberalization. The answers reveal interesting findings: about three quarters of the respondents declared that they have started or intend to bring adjustments to their enterprises in the area of technology, skills and management and internal organization. The results thus show that they are preparing themselves for a more competitive business environment, even though many of them fear trade liberalization and declare publicly that they are not optimistic about its outcome.

Surveys of Foreign Investors

The results of three surveys of potential and existing foreign investors are summarized in this section. First, a recent PriceWaterhouseCoopers study on administrative constraints, based on a survey of 33 American enterprises functioning in Tunisia, has shown the following ranking of constraints:

Table 3.25: Survey of Foreign Investors

Constraint	Number of firms considering the constraint as major	Number of firms considering the constraint as moderate
Cumbersome and heavy administrative formalities	16	
Import procedures	7	18
Authorization to increase limits for foreign investment	9	12
Employment and immigration	4	10
Taxation	2	6
Industrial property	2	
Land acquisition	1	4
Foreign exchange procedures		4
Other	1	7

Second, in 1998, Tunisia Foreign Investment Promotion Agency (FIPA) commissioned a survey to assess potential investors' views and impressions of the Tunisian investment climate. The surveys conducted for this study revealed the following:

- Political and socio-economic stability
- Favorable foreign investment policies and incentives, but not sufficiently so to give Tunisia a competitive edge in attracting FDI; the key problem noted was the requirement to have joint venture for foreign investors in the onshore sector
- Adequate physical infrastructure and most transportation services, with the notable exception of telecom and , in the case of some investment, electricity shortages. Some investors also expressed concerns about government's tight control on internet access. In addition, marine transport costs were identified as excessive (relative to Thailand and other East Asian countries) despite Tunisia's geographical proximity to Europe
- Good supply of trainable worker and adequate skill base
- Cumbersome investment approval and business start-up procedures, especially for onshore firms.
- Lengthy and cumbersome process required for renewing expatriate residence and work permits
- Delays caused by customs procedures for onshore firms

The third survey (1995, Ministry of International Cooperation and Foreign Investment)[5] also concerned foreign investors' perceptions of the Tunisian environment. A questionnaire was addressed to 124 European investors, potentially interested in investing or currently operating in Tunisia. Investors were asked to rank what they consider as the most important actions to be taken in order to make Tunisia more attractive to FDI. Twenty percent of the respondents consider trade liberalization and deregulation as the two most effective actions. Eight percent thought that reducing red tape was the most important action to be taken. Forty percent of the respondents ranked reducing red tape and liberalizing the regulatory framework among the five leading actions that need to be taken. Production-related constraints were also mentioned as impediments to foreign investment but each one of them, taken separately, ranked well below the trade, red tape and regulatory constraints.

[5] The results of this survey are taken from J. Page and J. Underwood, Growth, the Maghreb and Free Trade with the European Union, in « Regional Partners in Global Markets : Limits and Possibilities of the Euro-Med Agreements », A. Galal and B. Hoekman (editors), CEPR/ ECES, 1997.

Annex 4

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

The Tunisian Investment Code

INVESTMENT INCENTIVES AND BENEFICIARIES

The Government has established a generous system of fiscal and financial benefits for enterprises (set out in the *Loi n° 93-120 du 27 Décembre 1993, portant promulgation du code d'incitation aux investissements*). The law and supporting regulations provide common incentives and specific incentives for investments in priority areas (export sector, regional development and agriculture being the main ones). Since 1994, investments in supporting sectors also qualify, including: professional development; education; health; energy management; R&D; environment; culture (cinematography); and handicrafts. Incentives provided in the 1993 Code were amended in March 1999 in order to provide stronger support to private investment, especially SMEs. Investments in the financial sector, electricity, hydrocarbons and mining are not covered by the Code and are governed by specific laws.

In response to the prospect of heightened competition for Tunisian producers at home as well as overseas, the investment code is being revised with the objective to facilitate the creation of new activities and to include numerous *ad hoc* initiatives recently taken by the *Conseil Supérieur de l'Exportation*. The *Commission Supérieure de l'Investissement* also has some discretion in providing selective incentives. The incentives provided in the Code are summarized in Table 4-1.

- Common incentives

- The most important common incentive to investment is the tax deductibility of reinvested earnings up to a limit of 35 percent of net taxable income for both individuals and companies. Firms are also given the option to depreciate capital with life longer than seven years according to a declining balance instead of the straight-line rule. The corporate income tax is 35 percent except for agricultural firms, handicraft and fisheries (10 percent) and firms listed on the stock exchange (17.5 percent), which is reasonable compared to most comparable countries (35 percent in Morocco, 36-39 percent in Portugal).
- In the 1993 code, all imported equipment which does not have domestic substitutes is to be taxed at the tariff rate of 10 percent. However, duties on capital goods fulfilling this condition were totally removed in 1996.
- VAT and sales tax are suspended on non-locally produced imported equipment and locally purchased equipment. VAT is the most important indirect tax, with a base rate of 18 percent (29 percent on luxury goods, 10 percent on some capital goods, 6 percent on "sensitive goods"). With the progressive import tariff removal within the framework of the FTA with EU, VAT is likely to become an increasingly major component of taxation in Tunisia.

- Specific incentives

In addition to common incentives, the Code provides specific incentives to encourage investment in priority areas (for more details, see Annex 5)

- **Export incentives**

Offshore firms (totally exporting firms) are granted the most generous incentives: an income tax holiday for ten years after the first export transaction, followed by a reduced rate equal to 50 percent of the statutory rate thereafter; income tax exemption on personal or corporate income, provided a minimum tax rate (10 percent for most activities) is paid; reimbursement of certain transport costs; and a total exemption from all taxes and duties on imported inputs and capital goods. They also benefit from a fast import-clearing scheme. Off-shore firms are allowed to sell 20 percent of their production on the local market, if they produce manufactures or services, and 30 percent of their produce if their activity is agriculture or fishing. However, they are under the obligation to pay the statutory taxes and duties on these domestic sales which are treated as imports. (But these domestic sales will be subject to the same revisions of duties and taxes than imports from the EU within the framework of the FTA – law 98-111). Offshore firms, as well as foreign investors, are allowed to hire up to 4 foreign managers. Offshore firms cannot normally cumulate export incentives and other incentive schemes; however, social security contributions, which represent 17.5 percent of total wage bill, of offshore firms established in regional development areas are paid by the State for 5 years (with a 5 year renewal since March 1999, provided the firm was created before 1993).

Partially exporting firms are granted similar generous incentives but only in proportion to their sales abroad. There are major differences, however. Contrary to off-shore firms, they have to pay duties on all of their imports and then seek refunds on the basis of volumes exported. In addition, they do not benefit from the fast import-clearing scheme, although temporary admission is now allowed for inputs involved in the production of planned exports; they are subject to restrictions on employment of expatriates; they are not exempted from VAT and sales taxes on imports and, contrary to offshore firms, partially exporting firms located in regional development areas cannot cumulate pro-rated export incentives with the 5-year payment of social contributions by the State.

- **Regional development**

Investment undertaken in backward regions of the country are granted the same income tax holiday and rebate as off-shore firms. However, after the 10-year tax holiday period, they benefit from the reduced income tax rate of 50 percent for 10 years instead of indefinitely. In addition, an investment premium amounting respectively to 25 percent and 10 percent of total investment cost (instead of 8 percent prior to March 1999) is granted to firms created in (i) "priority regional development areas" and (ii) in "other development areas". Firms are also encouraged through state contribution to infrastructure expenditures (depending on the size and location of the project) and state funding of all social security contributions for a five-year period.

- **Agricultural development**

The investment code grants agriculture and first-stage processing activities the same 10-year income tax holiday as exports and regional development (without any reduced rate after holiday). In addition, this activity benefits from a subsidy equal to 25 percent of the cost of investment for farms of small size, to 20 percent for medium-size farms and to 7 percent for large farms. The State also contributes to infrastructure expenses in regions intended for aquaculture and geothermal crop-growing and provides an additional 8 percent premium for activities established in harsh climate areas and fisheries in certain regions.

- **Support to handicraft**

Firms benefit from reimbursable contributions and an investment premium of 6 percent of total investment cost and a reduced income tax rate (10 percent).

- **Environmental protection and pollution control**

An investment premium corresponding to 20 percent of the investment cost is granted to firms investing in environmental protection and pollution control. In addition, net profits are taxed at a reduced rate of 10 percent.

- **Research and Development and technology promotion**

Within the framework of the "mise à niveau" program (see Annex 5), specific incentives, which can be cumulated with regional development incentives, are granted to firms: they benefit from investment premiums amounting to (i) 10 percent to 20 percent for physical investments and (ii) 70 percent for intangible investments.

- **Supporting investments (education, training, health, culture, transport)**

Supporting activities are encouraged through a reduced rate of corporate income tax (10 percent).

- **Support to Small and Medium Enterprises (SME)**

Two main specific incentives are granted to SMEs (law 99-4): (i) participation to equity (30 percent of minimum capital for the first investment payment, up to TD 1 million, and 10 percent of minimum capital for additional payment); (ii) investors are paid a premium of 70 percent of the total cost of studies and technical assistance, the maximum amount being TD 20,000.

- **Support to New Entrepreneurs**

New entrepreneurs, either exporting or not, benefit from several incentives (law 99-4), which include (i) investments eligible to FOPRODI support may now amount to up to TD 3 million, instead of TD 1 million previously (see Annex 5); (ii) investors are paid a premium of 70 percent of the total cost of feasibility studies and technical assistance, the maximum amount being TD 20,000; (iii) participation to equity (45 percent of minimum capital for the first investment payment, up to TD 1 million, and 20 percent of minimum capital for additional payment); (iv) contribution of the State to the purchase of land and buildings, corresponding to 1/3 of their total cost, up to TD 30,000.

❑ Restrictions on foreign direct investment (FDI)

These restrictions were softened in 1997 but remain relatively strict:

- There is no restriction on profit or capital repatriation, but:
- Foreigners cannot own agricultural land (but they can now lease it for up to 25 to 40 years)
- Foreign participation in all partially-exporting/on-shore already existing firms requires prior approval from the *Commission Supérieure de l'Investissement* as soon as it exceeds 50 percent of equity (since 1997, in order to encourage foreign participation in the equity of privatized firms).
- For new firms, the same restriction applies to firms created in the non-totally exporting service sector. These activities are listed in the 1994 *Guide du Promoteur*. However, since March 1997, real estate promotion, computer services, consulting and auditing companies, and industrial maintenance do not need prior approval anymore.
- For activities not listed under the Investment Code, especially financial sector, electricity, hydrocarbons and mining, which are of particular importance for foreign investors, agreements have to be negotiated with the State on a case-by-case basis.

❑ Multilateral and bilateral guarantees

- Guarantees and disputes: foreign investors are protected by bilateral and multilateral guarantees. Tunisia has signed New York Convention for the execution of arbitration sentences and promulgated an Arbitration Code (Arbitration Law 93-42). It is a member of MIGA and the ICSID.

- Intellectual and industrial property rights: in 1982, Tunisia created an institute for protection of industrial and intellectual property, the *Institut National de la Normalisation et de la Propriété Industrielle* (INNORPI). Industrial property, patents and trademarks are registered with INNORPI. Tunisia signed the Paris Convention for the protection of industrial property but denounced the Madrid arrangement on international registration of trademarks. Tunisia is also a member of the World Intellectual Property organization and has signed the Universal Copyright Convention and the Berne Convention for the protection of literary and artistic works.

Overall, the existing incentive system aims at a relatively large range of activities, but the most popular has been the one directed to off-shore enterprises. Off shore enterprises benefit from full exemption from tariffs and VAT on imported inputs as well as generous tax holidays provided by the Investment Code (Table 4-1). Although onshore (including partially exporting) firms benefit from almost the same (pro-rated) tax incentives than off-shore firms proportional to their exports, they face several administrative and bureaucratic constraints which are an impediment to their creation and expansion.[6]

INTERNATIONAL EXPERIENCE

Many countries, like Bosnia (Box 4-1 and Table 4-1) have opted to streamline their tax incentives on the basis that these incentives were not the most cost effectiveness instrument to promote private investment in their country. As noted earlier, this trend has been supported by most private investors who seek simplicity and transparence rather than generous but unstable tax incentives. Of course, streamlining tax incentives would require the authorities to think about reforming their general tax system . To compensate for the elimination of tax incentives, there will be certainly a need to reduce the general tax rate. This road has been chosen by many successful countries (Lebanon, Chile, etc.).

BOX 4.1: The Case of Bosnia

Although there are no definite models of what an investment incentive scheme should be, depending on the country's conditions and objectives, several features of recently adopted investment codes, such as the Bosnian Investment Code, may be considered as close to best practice :

- They create a level playing field for all investors, local and foreign;
- Specific tax incentives are eliminated and merged in the general tax system, and the general tax code is revised to be attractive to all investors;
- All investors, either local or foreign, are subject to the general legal and regulatory framework prevailing in the country. Foreign investors are not subject to specific restrictions on foreign or local employment and property rights;
- There are no sector-specific incentives or restrictions, except for those pertaining to national health and security;
- There are no prior approval requirements except for very sensitive activities affecting national health and security.
- Procedures (approval if any, registration, permits) have to be completed within a defined period of time, and if not, are deemed to be done, thus eliminating long bureaucratic delays;
- The country guarantees property rights and appropriate compensation in case of expropriation, as well as protection of intellectual property for all investors;
- The country accepts the option of international settlement in case of investment disputes;
- As a result, these codes are clear, simple and transparent.

[6] It is worth underlining that (i) onshore enterprises include not only firms oriented towards the local market, but all firms exporting less than 80% of their output; (ii) the "offshore/onshore" status is granted ex ante (even if ex-post controls may occur).

Table 4.1 – Comparison between the Tunisian and the Bosnian Investment Codes

Specification of:	1993 Tunisian Code	1998 Bosnian Code
Common income tax incentives	Yes	No, if not in the general tax code
Specific income tax incentives	Yes: variable, depending on: Totally exporting firms Partially exporting firms Agriculture Regional Development Environment Support investments	No, if not in the general tax code
Common duty and tax exemptions for capital goods	Yes	Yes
Specific duty and tax exemptions for capital goods	Yes: variable, depending on: Totally exporting firms Partially exporting firms (duty drawback scheme) R&D	No, if not in the general tax code
Common investment premium	No	No
Specific investment premium in priority areas	Yes: variable, depending on: Agriculture Regional Development Environment Support investments SMEs	No
Sector specific incentives	No	No
Other common financial incentives (payment of social contributions, etc...)	No	No
Other specific financial incentives (payment of social contributions, etc...)	Yes, variable, depending on: Regional development Agriculture Technology	No
Restrictions on foreign property rights	Yes, agricultural land can only be leased	No
Prior approval requirement on foreign participation in equity of existing firms	Yes, over 50 percent of equity for non totally exporting firms	No, except over 50 percent in military plants and weapon production
Prior approval requirement on foreign participation in equity of new firms	Yes, over 50 percent of equity for non totally exporting firms in the service sector	No, except over 50 percent in military plants and weapon production
Restrictions on foreign involvement in some activities	Yes, case-by-case agreements in hydrocarbons and mining, financial services and restaurants	No, except those specified in the general law (not specific)
Principles applying to the length of procedures (approval, registration)	Accelerated registration procedure and import clearing for totally exporting firms only	Procedures deemed to be completed after expiration of specified delay.

Annex 5

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Government Programs to Support Private Sector Development

Like in many other countries, the Tunisian private firms -- especially small and medium size enterprises (SMEs) -- face a number of challenges in enhancing their international competitiveness and in entering global markets. This especially applies to onshore firms, but also to offshore firms involved mainly in subcontracting arrangements, who could expand their profit margins by developing arms-length exports. These firms have to (a) identify the right target market, the right product segment, and the right selling channel; (b) learn how to adapt their products for these markets so that they are able to meet the price and quality standards demanded by the target market; (c) understand their competitors; (d) based on these considerations, launch marketing and selling campaigns; and (e) deliver the product on time and collect on sales.[7]

These activities require significant investments — and often up-front investments — not only in terms of financial resources but also skilled and scarce managerial resources. A highly trained marketing staff is required to understand and service the needs of the market. A skilled technical workforce is required to translate the market needs into appropriate production and quality assurance processes. These activities are also information intensive and often require years for understanding the market. All these have to be undertaken in an environment where often the firms are already stretched thin trying to cope with existing problems such as poor infrastructure, inadequately trained work force, delays in securing inputs, complying with procedural requirements and accessing credit from often conservative banking systems. As a result of these problems, not only small and medium producers but also some large Tunisian producers do not actively make significant efforts to enhance their competitiveness. They cannot afford to add more demand on their limited cash flows. Even if they are willing to make some of the up-front investments in developing their capabilities, this may not be justifiable because they cannot achieve economies of scale and scope.

Recognizing this need, the Government of Tunisia has put in place several programs to improve the private sector's ability to compete on world markets.[8] Most of these programs involve direct support to firms, especially SMEs, and complement other programs which aim at improving the business environment for SMEs (for example industrial zones and vocational training). In most cases, these programs include financial support, especially to SMEs, as the lack of access to credit represents a major impediment to their creation, upgrading and expansion. Government programs support exporters, new entrepreneurs and SMEs development, competitiveness through the *mise à niveau* program, and skill development. There are also in Tunisia programs devoted to information technology and pollution control.

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[7] A survey of emerging exporters in November 1998 showed that most of the exporters interviewed, especially partial and indirect exporters employing less than 100 workers, lacked : (i) adequate knowledge of export markets and its requirements in terms of product design, standards, quality demands; (ii) sufficient access to, and skills for, production technology required to meet international specifications, technical standards, and import market regulations for safety, packaging and labeling; and (iii) adequate expertise in market entry pricing, negotiations, promotion and distribution strategies.

[8] These programs concern industrial upgrading (*mise à niveau*), investment promotion, export promotion, marketing assistance, trade and technology information, technical training, SME finance, and technology development.

I - EXPORT DEVELOPMENT

FOPRODEX - *Fonds de Promotion des Exportations*

The most important program for export promotion in Tunisia is FOPRODEX, which was created in 1985 to provide exporters with loans and subsidies to finance up to 80 percent of export-related activities. FOPRODEX interventions are devoted (i) to export marketing: international market studies, editing of brochures and catalogues for international communication, prospecting and advertising and (ii) to cover part of the freight costs incurred for the export of new products and/or in a new market. The program is managed by CEPEX, the agency in charge of export promotion services (Centre de Promotion du Commerce Extérieur), which was created as a public body in 1973. The consultative committee of FOPRODEX, chaired by the president of CEPEX, advises on the allocation of grants to export promotion activities. FOPRODEX is a publicly-funded and publicly-managed fund. Private sector representation in the consultative committee has always been minor (about one representative of UTICA (Union Tunisienne de l'Industrie, du Commerce et de l'Artisanat) for eight representatives of government departments).

FORPRODEX has allocated about TD 10 million of loans and grants per year to private firms. However, FOPRODEX objectives have not been fulfilled, the fund suffering from lack of efficiency and the absence of evaluation of its interventions. An excessive proportion of its resources (about a quarter) were devoted to cover 50 percent of transportation costs for new exporters, whereas promotion activities remained limited. The fund also did not provide training for exporters and advice to enter export markets, thus limiting the number of firms which could effectively benefit from the facility. In fact, FOPRODEX provided subsidies to the same pool of beneficiaries each year. In addition, there was a lack of clear distinction between FOPRODEX and CEPEX resources, FOPRODEX funds becoming increasingly a source of income for CEPEX.

EMAF –Export Market Access Fund

Tunisian private firms, especially SMEs, have long been highly protected from external competition and often lack skills and external market know-how and expertise to develop exports on a competitive, efficient basis. Given the weaknesses of FOPRODEX, a new program, EMAF, has recently been developed with the support of World Bank along new guidelines: the fund aims at encouraging firms, especially SMEs, to enter export market by covering on a temporary basis up to 50 percent of the cost of consultant services and by providing technical assistance. Services are offered (by local consulting industry and international experts in collaboration with local consultants) solely in response to private firms demand. All firms are eligible, on a non discriminatory, first-come-first-served basis, provided that they have developed a highly-focused export plan and that the entrepreneur is committed to implement it. In order to stimulate offshore-onshore linkages, indirect exports and offshore enterprises can also benefit from the fund, provided that they are developing onshore partnerships. This facility provides three types of assistance: (i) technical assistance to firms preparing their export plans, with US $ 1.5 million to cover up to 70 percent of the preparation cost, the maximum amount being TD 10,000, (ii) US $ 10 million for non reimbursable grants to cover up to 50 percent of eligible activities undertaken within the framework of the export plan (consultant services, trips, mailing, promotion material), with a maximum TD 100,000 and (iii) technical assistance during implementation of the export plan. Private firms are encouraged to use local and foreign business and export development services. The indicator of success is the amount of exports generated.

The fund is managed by an internationally experienced team, supervised by an EMAF Director Committee headed by the president of CEPEX and composed of representatives from the Ministry of Commerce, Ministry of Finance, COTUNACE[9] and UTICA (FEDEX – *Fédération des Exportateurs Privés*). It is executed according to a detailed Operating Manual.

The facility has been designed based on international best practice. It is demand-driven, non-discriminatory and relies on active involvement of private institutions and firms that have specialized marketing expertise, rather than on direct government intervention. In addition, firms are required to provide a significant contribution, in order to minimize misuse of funds and improve financial sustainability. While initial estimates indicated assistance to 350 SMEs over a three-year period, the demand is likely to significantly exceed projections, as indicated by requests for EMAF assistance since April 2000.

PEFG – Preshipment Export Finance Guarantee Scheme

The purpose of PEFG, which is being developed with the support of the World Bank, is to encourage financial institutions to provide preshipment financing (working capital) to all SMEs and emerging exporters in manufacturing, processing and service activities (except sectors on a negative list), provided that they submit viable export contracts and that they are unable to access trade credit from commercial banks because of lack adequate collateral or credit history to prove that they are creditworthy. Thus the facility is designed to address the main issues explaining bank reluctance to provide export finance to SMEs and emerging exporters: (i) risks stemming from foreign importer, (ii) loan misuse by exporter, (iii) exporter's non-performing risk, and (iv) bank excessive risk aversion due to their reluctance to invest in information.

The initial size of the fund, which is established by the government, is US $ 5 million. The PEFG issues a PEFG certificate to the commercial bank offering preshipment export finance on behalf of the exporter, guaranteeing up to 90 percent of the loan provided that the exporter's failure is not due to foreign buyer's non payment or other events normally covered by insurance (i.e., non-performing risk). Loans must be granted by financial institutions for up to 180 days to finance input and working capital costs of direct or indirect exports (i.e., suppliers of off-shore firms). To minimize moral hazard, loans cannot exceed 90 percent of total export proceeds and the facility guarantees only 90 percent of the non-performing risk, borrowers paying a fee of 0.15 percent per month. The facility is administered by COTUNACE and monitored by a Risk Agreement Committee (*Comité d'Agrément des Risques* - CAR) headed by the Chief Executive Officer of COTUNACE.

II – SUPPORT TO NEW ENTREPRENEURS AND SME DEVELOPMENT

FOPRODI - Fonds de Promotion et de Développement Industriel

Founded in 1973 by article number 45 of law No. 73-82, FOPRODI aims at promoting a new generation of entrepreneurs, promoting and developing SMEs and specific regions of the country. In its initial phase, eligible investments could not exceed TD 1 million, and 25 percent of total project costs had to be paid by the entrepreneur. Several schemes of financing were provided by FOPRODI a) repayable advances used by an entrepreneur in order to augment his or her capital and to hold up to 51 percent of equity; an investment premium, corresponding to 6 percent of total project cost, granted to projects which did not exceed TD 300,000; contributions to feasibility study costs and State funding of social security contributions for a five-year period b) long term credits; and c) exoneration for the first six months from

[9] Compagnie Tunisienne pour l'Assurance du Commerce Extérieur.

interest payments on bank credit. Interest rates on FOPRODI's financing schemes were highly subsidized, and maturities of a long-term nature.

In its initial phase, FOPRODI financed some 1700 enterprises (1/4 of all industrial projects) of which only 50 percent repaid their obligations. This substantial use of FOPRODI in the seventies and the eighties was due to the fact that banks had to allocate a given percentage of their resources to FOPRODI-supported projects, through the *Ratio d'Activités Prioritaires (Priority Activities Ratio).* Following the elimination of this ratio, the fund has been less and less used (about 20 projects in 1998). API has identified one major cause to this failure, namely the lack of appropriate functioning of the national guarantee fund (Fonds National de Garantie).

Therefore, FOPRODI is being redesigned to support industrial projects and job creation by providing venture capital. The new FOPRODI seems promising, as 20 projects have been financed since the mid-1999 reform. Under the new scheme, FOPRODI, through SICARs (*Sociétés d'Investissement en Capital Risque*), privately financed closed end risk funds, participates in the equity of new companies. Eligible investments amount to up to TD 3 million (instead of TD 1 million previously) and the previous loan component is replaced by equity participation. Equity must account to at least 30 percent of total project cost. The balance (70 percent) is financed through (i) FORPRODI credits, up to 30 percent of total project sot; they have to be repaid over a twelve-year period and bear a 3 percent annual interest rate, (ii) bank loans, and (iii) State's contribution to the purchase of industrial land and technical studies and assistance, amounting to 3.75 percent of total project cost.

Table 5.1: Financing plan of TD 1 million project with FOPRODI support

Sources of finance	Amounts	% of equity	% of total project cost	Comments
Equity	**300,000**	**100**	**30**	
➢ Entrepreneur's own funds	30,000	10	3	
➢ FOPRODI	135,000	45	13.5	Repayable contribution
➢ SICAR	135,000	45	13.5	Repayable participation
Loans	**700,000**		**70**	
➢ Bank loans	362,500		36.25	
➢ FOPRODI credit	300,000		30	Repayable over a 12 years period at 3 percent annual interest rate
➢ State	37,500		3.75	State contribution

Entrepreneur's initial contribution to equity represents 10 percent of equity. To strengthen supervision and monitoring of the entrepreneur's activities, the contribution (45 percent of equity) will be managed by the SICAR during project implementation rather than being immediately granted to the entrepreneur. In addition, this contribution is expected to be reimbursed by the entrepreneur after a given period of time, thus allowing financial sustainability of the facility. To avoid misuse of funds, the SICAR itself has to invest out of its own resources 45 percent of equity . This contribution also has to be repaid by the entrepreneur over a 12-year period, at a price contractually agreed upon at the project launching date. This mechanism is therefore closer to a participatory credit scheme than to venture capital. In this new

scheme, the SICAR will hold 90 percent of equity during the first phase and will thus bring its expertise to project design and implementation. The entrepreneur will then be enabled to manage the FOPRODI contribution and will therefore hold 55 percent of equity. Hence the SICAR will keep sufficient equity participation to be involved in project management until the entrepreneur is able to reimburse its contribution. Future performance of FOPRODI will thus heavily depend on how SICARs will be managed.

SICAR – Sociétés d'Investissement en Capital Risque

The mission of SICARs is to provide venture capital in order to increase equity of firms (i) created by new entrepreneurs, or (ii) established in priority regional development areas, or (iii) involved in the *mise à niveau* program (see below), (iv) in difficulty, (v) promoting R&D and technological upgrading. SICARs may be established by all groups which wish to invest, with a minimum equity of TD 500,000. Funds are exempted from taxation, provided that they have been invested within four years after the creation of the SICAR. Most SICARs were created in 1994-1995, for a total of 16 companies in 1999, most of them being private. There are two other types of venture capital companies in Tunisia: (i) SICAF (*Sociétés d'Investissement à Capital Fixe*) and (ii) SICAV (*Sociétés d'Investissement à Capital Variable*).

Typically, the Tunisian SICAR includes two components: (i) a management company, in charge of identifying, designing and managing investment projects, and (ii) an investment company, which own the funds. Project approval is made by an Investment Committee gathering representatives of the investment company. This type of structure implies that each SICAR has to develop in-house highly accurate skills, which may be an impediment to the development of SMEs or complex investments in technology, for which project appraisal is typically difficult. Thus, most SICARs gather no more than one to two people, who mostly invest funds in their own group. Nevertheless, two SICARs, *Société de Participation et de Promotion des Investissements (SPPI)* and *Tuninvest* have achieved good performances. Three other small SICARs established in priority regional development areas have also achieved satisfactory results.

FNG - Fonds National de Garantie

FNG is a fund fueled by commercial bank contributions to mitigate the *credit risk of the credit portion financed by commercial banks.* The *Fonds National de Garantie*, created in 1983, was designed to guarantee bank credits to SMEs in the following cases (i) short, medium and long term credit granted by banks out of their ordinary resources, to finance SME creation of expansion, (ii) medium term credit granted by banks out of deposits to finance investments in the handicraft sector (iii) export credit to help small farmers and SMEs finance their investments. In the past, FNG was a failure. Banks have never been able to recover their claims to unpaid loans and have not trusted the fund. An attempt to reform it in 1997 had failed to yield any substantial result.

In 1999, the mechanism has been modified again. Following Law 99-8 of the 1st of February 1999 an the decree of November, 22, 1999, the scope of FNG's activities has been widened to include, in particular, the guarantee of some kinds of participation by venture capital funds to equity of SMEs. FNGs guarantees non recoverable loans and equity participation, interests on delinquent loans, part of the cost of recovery procedures[10]; For claims eligible to FNG guarantee, a minimum return on credit is guaranteed. FNG guarantees are granted according to the following modalities:

[10] FNG bears 75 percent of the cost of recovery procedures when loans have been granted to finance projects in priority regions, and 50 percent of this cost otherwise.

Table 5.2: Modalities of FNG's guarantee

Category of claim	Coverage of FNG guarantee	Risk borne by other creditors/stakeholders
- Short term credit for working capital financing granted to small and medium farmers affiliated to mutual guarantee schemes	70%	5% by the bank 25% by the mutual guarantee scheme
- Short term credit to small and medium farmers et fishermen not affiliated to mutual guarantee schemes	90%	10% by the bank
Short, medium and long term credit to manufacturing SMEs		
- Credit to FOPRODI projects	2/3	1/3 by the bank
- Other credits	50%	50% by the bank
Medium term credit to projects which benefit from FITI support[11]	90%	10% by the bank
Medium term credit to handicraft, small businesses and young entrepreneurs benefiting from FONAPRAM support[12]	90%	10% by the bank
Medium and long term credit to firms in the service sector eligible to FOPRODI support		
- FOPRODI credit	2/3	1/3 by the bank
- Other credit	50%	50% by the bank
Export credit		
- Pre-financing	50%	50% by the bank
- Export receivable discounting	70%	30% by the bank
SICARs' contributions to projects		
- With support from FITI	90%	10% by SICAR
- Promoted by new entrepreneurs or located in priority regions	2/3	1/3 by SICAR
- Others	50%	50% by SICAR

Source: *Périodique de Conjoncture, Banque Centrale de Tunisie,* December 1999.

For bank credit or SICAR contribution to benefit from FNG guarantee, a declaration has to be made to a committee, which include twelve members from relevant Ministries, and is headed by the Finance Ministry. Banks levy a fee of 5/16 percent of the credit amount, included in the lending rate. They also levy a fraction of the credit amount[13]; SICARS also pay a contribution equivalent to 3 percent of their contribution. These fees are deposited in the FNG's account, which is opened with the Central Bank and managed by an insurance company.

[11] The *Fonds d'incitation à l'Innovation dans les Technologies de l'Information (FITI)* is presented thereafter.
[12] FONAPRAM – *Fonds National de Promotion de l'Artisanat et des Petits Métiers* – is described thereafter.
[13] This fraction is equivalent to 3 percent of total credit amount in the case of SMEs involved in the manufacturing or service sector and eligible to FOPRODI support; to 1.5 percent when credits have been endorsed by mutual guarantee schemes; and to 2 percent in the case of other credits.

International experience has widely shown that credit guarantee schemes are difficult to design and implement, especially when targeted to small businesses and micro-credit. They may increase moral hazard and delinquency among borrowers. However, under certain conditions, they can improve access to credit for SMEs on a sound basis. Successful programs are based on several basic principles: (i) subsidized credit should be avoided as it generates distortions in financial market, damages competition among credit suppliers and leads to unsound selection of borrowers, (ii) the guarantee scheme should be an independent body, and should be perceived by banks as part of their lending strategy rather than as a political tool or a public institution; (iii) it should be adequately capitalized and staffed with qualified people so as to allow guarantee requests to be handled effectively and in a short period of time (not exceeding three weeks), since reputation and bank confidence in the scheme are key element of success; (iv) guarantee services should be complemented by strong marketing and communication activities to lenders and SMEs; (v) guarantee schemes should aim at achieving strong expertise and economies of scale in risk assessment and claim handling; (vi) they should be adequately sized and targeted to SMEs rather than micro-businesses only (firms with about fewer than 300 employees); and (vii) there should be appropriate prudential guidelines such as upper exposure limit on individual guarantees, limit on the amount of eligible loans and adequate risk-sharing principles. In particular, guarantees should only be granted when borrowers finance at least about 20 percent of project cost out of equity. The amount of the guarantee should range between 60 percent to 80 percent of the loan, depending on the guarantee fund staff involvement in borrowers selection and debt recovery.

FONAPRAM - Fonds National de Promotion de l'Artisanat et des Petits Métiers

The purpose of this program is to provide support to the handicraft sector, in the areas of modernization, expansion, and export. The enterprise has to provide a detailed list of eligible activities to be undertaken. At least 40 percent of the project has to be financed out of own funds, but including the premium, which may amount to up to 36 percent of the total investment cost. Total investment must range between TD 10,000 and TD 50,000.

III – INDUSTRIAL MODERNIZATION

Enterprise upgrading program - *Programme de mise à niveau*

In response to the competitive challenges facing Tunisian enterprises, the Government introduced in 1995 the comprehensive "*mise à niveau*" program to help Tunisian manufacturing industry to adapt and upgrade its methods and practices of organization, management, innovation, training, technology, distribution, marketing, communications, and research and development. Both offshore enterprises, mainly in the textiles and clothing industry, and onshore enterprises which produce for domestic markets, are eligible for support under this program. The authorities have committed a very large amount of public resources through the *Fonds de Développement de la Compétitivité* (FODEC), funded by firms' contribution to competitiveness improvement and upgrading.

The program is managed by the *Comité de Pilotage* (COPIL), which is responsible for approving the enterprises' proposed "*mise à niveau*" plans. It is attached to the Ministry of Industry and is composed of 16 members representing the Government (5), the employers' group UTICA (5), the banks (5), and the labor union UGTT (1). COPIL is chaired by the Minister of Industry or his designate. The implementing Agency is the *Bureau de Mise à Niveau* (BMN).

Overall, the program targets 2,000 firms over a 5-year period out of 4,000 eligible enterprises. A total amount of 2.5 billion TD is expected to finance the *mise à niveau*, of which 60 per cent would be allocated to modernize enterprises and 40 per cent to strengthen the basic and technological infrastructure,

and to improve the interventions of institutions providing support and promotion. The financing of the program is partially provided by the enterprise and the financial sector at market rates. The Government's contribution is provided by the *Fonds de Développement de la Compétitivité* . It takes the form of a premium based on the structure of the financing plan for the "*mise à niveau*" of the enterprise (see below). The firm applies for a loan to the bank of its choice, and the premium is granted only to finance bankable investments.

The program has recently been strengthened in order to (i) better reach SMIs (ii) increase intangible investments, in particular through pilot activities undertaken by a Task Force "*PMI*". This Task Force, created by the Ministry of Industry, gathers API, Technical Centers, Euro-Tunisie Entreprise and consulting firms (iii) strengthen the strategic positioning approach, supported by the recently created CEPI (*Centre d'Etudes et de Prospective Industrielles*).

As of end February 2000, results of the *mise à niveau* program were as follows:

- 645 files had been approved and completed
- A total of 1276 firms had been enrolled in the program , i.e., 64 percent of the target as of 2001.
- TD 1216.1 million of investments (1044.4 physical investments and TD 171.7 million of intangible investments, the latter thus accounting to 16 percent of total investments; the part of intangible investment is increasing: 11.7 percent in 1996, 13.3 percent in 1997, 14.2 percent in 1998 and 16 percent for approved 1999 files).
- The trend in investment expenditures indicates that the is increasingly reaching SMEs. Firms with fewer than 100 employees accounted for 29 percent of the total number of approved files, but this percentage was 66 percent in 1999.
- Self-financing rate of investments within the framework of the program was 57 percent.

Continued actions of advertising and consultation have been implemented and carried out since the launching of the program, with the various actors and partners of the program (banks, professional associations,...) and the various *gouvernorats*.

Firms enrolled in the program account for 40 percent of total employment of industrial firms with more than 20 employees, 64 percent of total turnover and 39 percent of export turnover.

The survey which was carried out by the *bureau de mise à niveau* in May 1999 indicated that the overall completion rate of planned investments was 59 percent (62 percent of physical investments, 29 percent of intangible investments).

The survey also highlighted the impact of completed investments on several performance and competitiveness indicators over the period 1996-1999:

- Average annual growth rate of total turnover over the period was 15 percent. Average increase in operating profit was 21 percent, indicating a significant improvement in firms' competitiveness. In addition, there is a correlation between the improvement of performance indicators and the completion rate of investments. For firms which has completed less than 30 percent of planned investments, overall increase in turnover and operating profit were 40 percent and 29 percent respectively between 1996 and 1999. For firms which ahs completed more than 30 percent of planned investments, overall increase in turnover and operating profit reached 73 percent and 97 percent respectively.
- Export turnover increased by 13 percent per year on average.
- 38 percent of firms which exported in 1999 were not involved in export activities in 1996, which suggests that the *mise à niveau* program has a positive impact of firms' internationalization.

- Overall employment increased by 6.6 percent per year on average over the period 1996-1999, with a significant improvement in executive employment, which increased by 18 percent per year. There is a clear tendency in favor of strategic functions within the firm: organization, management,...
- Over 100 firms had obtained ISO 9000 certification.
- 79 percent of firms were considering implementing a second *mise à niveau* Plan.

Beyond these encouraging results, international experience (in the case of Slovenia, for instance) has shown that this type of program is likely to be more successful when government intervention is reduced to a minimum, and focuses mainly on providing financial support of the diagnosis phase to SMEs which otherwise could not afford it.

FODEC - Fonds de Développement de la Compétitivité Industrielle

The Government's contribution to enterprise upgrading is provided by the *Fonds de Développement de la Compétitivité Industrielle* (FODEC). FODEC has recently been merged with the *Fonds de Promotion et de Maîtrise de la Technologie Industrielle* (FOPROMAT[14], which was managed by the API (*Agence pour la Promotion de l'Industrie*), and provides funding for investments and technical assistance to promote competitiveness of industrial enterprises. This includes the acquisition of equipment that would enhance quality in production and in general facilitate the access of Tunisian companies to more demanding export markets. It also finances laboratory and testing equipment, technical audits, design and product development work, general market studies. In each case, FOPROMAT would finance up to a specific share of the cost.

FODEC provides subsidies to:

- intangible investments: 70 percent of studies required to implement the "*mise à niveau*", up to TD 30,000 and 50 percent of other intangible investments. These diagnostics are usually carried out by private consultants, but can also be carried out by one of the eight technical centers established for the main industries. For instance in the key textiles and leather sector, which accounts for almost half of exports, most of the diagnostics were carried out by CETTEX, the *Centre Technique du Textile*.
- (ii) physical investments aimed at improving competitiveness, provided that they have been approved by a financial institution: 20 percent of total investment cost if self-financed, or 10 percent of the self-financed component if external financing is used.

These financial contributions may be cumulated with the premiums granted under the Investment Code for regional development (Annex 4).

Eligible firms are all enterprises in the industrial sector or in the industry-related service sector, with a special focus on existing SMEs which are implementing the "*mise à niveau*" program. This program is also supported by a similar project implemented by the EU, ETE (*Euro-Tunisie Entreprise*).

The *Mise à Niveau des Services* Program

The Government is also in the process of establishing a *mise à niveau* program for services tied to industry. These are the key services that are important in improving the productivity and competitiveness of the industrial sector. It will cover: business services; engineering; computing; training; agricultural

[14] FOPROMAT was created to provide financial support to SMEs, for purchase and mastering of technologies in order to improve their competitiveness. Firms were granted premiums (corresponding to 50 percent of total cost, with maximum amounts) to finance (i) technological and quality audits, up to TD 10,000, (ii) studies related to technological investments, up to TD 10,000 (iii) purchase of equipment, up to TD 100,000 (iv) technical assistance aimed at quality or competitiveness improvements, up to TD 50,000.

consultants. Other important services such as financial services, telecommunications, electricity, and transportation are already being upgraded under other programs. The *mise à niveau des services* program is expected to function like the "*mise à niveau de l'entreprise*" program. Funding will come from FODEC and the approval procedures will be similar.

The Role of Industrial Promotion Agency – *Agence de Promotion de l'Industrie (API)*

Industrial promotion in Tunisia has been closely linked to API's activities for more than 30 years. API had long been considered as an international reference as regards to industrial promotion; over the past ten years, however, the agency faced several difficulties. Several elements converged to explain that services and activities provided by API at that time were no longer in line with the needs of the industrial sector and firms (aging human resources, obsolete programs, sophistication of firms' needs, departure of the best performing executives,...). To play a more relevant role in private sector development, API has recently adopted wide and ambitious restructuring plan involving new governance and new culture.

The main axes of API's intervention are articulated around five autonomous centers:

- The *Centre de facilitation et de gestion des avantages* which aims at implementing fast and simplified procedures for management of incentives and services to entrepreneurs: *Guichet Unique,* ISO 9002 certification, FORPRODI management, and centralized treatment of declarations.
- The *Centre d'études et de prospective industrielles* – (CEPI), which provides strategic studies and information services as needed by firms.
- The *Centre de soutien à la création d'entreprises* – (CSCE), which serves as a nation-wide network of incubator of new firms.
- The *Centre de soutien à la PME-PMI* – CAPMI, which provides enterprises with a SME task force, partnership and industrial networking mechanisms (sub-contracting , database,...)
- The *Centre de documentation et d'information industrielle*, which operates as a wide system of industrial information, based on modern information technologies (virtual exhibition for Tunisian industry, national and international databases, documentation).

Beyond this renewed professionalism, API also aims at reaching financial autonomy in the provision of its activities and services (with Bank support); API has also adopted a completely revamped approach in human resource management. From its performance over the past year, these objectives seem to be achievable.

Assistance to enterprises in difficulty

Enterprises that are in financial difficulties are excluded from the *mise à niveau* program, but are provided assistance in resolving these problems under the *Loi N° 95-34* of April 17, 1995. The law creates a *Commission de Suivi des Entreprises Economiques* which is charged to collect information on the activities of enterprises and to provide information to the *Président du tribunal de première instance*, who is charged with administering the bankruptcy law, warning of enterprises in difficulty and proposing restructuring plans.

There is also a *Bureau de l'Assistance aux Entreprises* whose activities involve three phases of assistance. The first two phases are administrative and try to help the enterprises to reach an agreement with their creditors to continue their operations and thus avoid failure. The third phase is judicial and seeks to help the enterprises to get recapitalized after bankruptcy. No financial support is provided to the enterprises, but when they are successfully restructured, they are eligible for support under the "*mise à niveau de l'entreprise*" program.

By the end of 1998, 262 enterprises had applied for assistance. Of these, 170 had been handled, 27 from textiles and leather and shoes, 21 from the food processing sector, 21 from the mechanical and electrical sector, 15 from oils, 11 from construction materials, ceramics and glass, 11 from construction, and the rest from other sectors. The overall success rate for these enterprises was reported to be 54 per cent. It was estimated that some 10,000 jobs were saved. Most of these jobs were in five large enterprises, two of which were in textile sector and two in mechanical and electrical.

Technical centers

The purpose of technical centers is to provide assistance to the industrial sector, consisting mainly of small and medium enterprises, and in particular to firms seeking to become more internationally competitive[15]. These centers play a very important role as intermediaries between the SMEs and the authorities and in the area of technical training and the "*mise à niveau*" program.

Technical centers are self-managed, since the Board president and vice-president are elected entrepreneurs. Since 1993, the composition of the boards has been reviewed so as to give a majority to manufacturers' representatives. But their general directors are nominated by the Ministry of Industry and are civil servants in most cases. With the support of the World Bank, technical centers have undertaken reforms since 1996, in order to become more efficient and market-responsive, and to achieve financial self-sustainability. To this purpose, they have implemented Performance Contracts. In addition, they are partly financed with public funds, but a growing part of their resources comes from self-financing, and they are being reoriented into commercially-based institutions. Moreover, some centers, such as CETTEX, have implemented competitive recruitment policies.

Technical centers have achieved various performances, a number of them just getting started, but their overall performance is satisfactory. They have managed to reach a growing number of private firms and are increasingly perceived as expertise centers.

FASEP – Fonds d'Etudes et d'Aide au Secteur Privé

FASEP, established in March 1999 by the French government, replaces two instruments:

- the Bérégovoy credit line ("*protocoles de partenariat*"), which was created in 1989; it was used up in 18 months and financed about 19 projects. This credit line was mainly a loan-based facility, *whereas FASEP is mainly an equity based facility.*
- the SME-SMI protocol (1997 and 1998), which provided concessional financing to 35 projects implemented by private firms within the framework of the "*mise à niveau*" program, for a total amount of TD 30 million.

FASEP is part of a program set up by the French government in several countries. This facility, which aims at supporting private firms in a much simpler manner than previous instruments, provides subsidies to Tunisian companies implementing the "*mise à niveau*" program, towards the purchase of French equipment and services. Joint-ventures with French companies are also eligible to the grant. The percentage of subsidy rises to 30 percent of total investment cost in the case of French participation in the

[15] There are currently eight technical centers: CNCC (*Centre technique du Cuir et de la Chaussure*), the oldest one, *Centre technique du textile* (CETTEX), *Centre technique des matériaux de construction* and *Centre technique des industries mécaniques et des électriques* (CETIME) and four centers which were created in 1996: *Centre technique de l'emballage et du conditionnement* (PACTEK), *Centre technique des industries agro-alimentaires* (CTAA), *Centre technique de la chimie* (CTC), *Centre technique du bois et de l'ameublement* (CETIBA).

equity of the company. It is coupled with a guarantee scheme ("*FASEP-garantie*") to support French-Tunisian joint-ventures.

IV – SKILL DEVELOPMENT

PRONAFOC – Programme National de la Formation Continue

Concerned by the fact that in-service training was primarily conducted by large enterprises, the Government established in the mid-nineties a special program, PRONAFOC (*Programme National de Formation Continue*) under the MVTE (Ministry of Vocational Training and Employment). The aim of this program is to finance in-service training activities for SMEs. This program, which is supported by World Bank (Second Employment and Training Project, 1996) and the *Agence Française de Développement,* can directly finance in-service training by a public or private institution, and preparation of training audits and training plans for an individual SME; it can also organize and finance activities like short technical courses for qualifying firms. Two types of courses are proposed: (i) courses aimed at improving management, marketing and financial skills of SME staff[16] and (ii) sector-specific courses[17]. The State pays all staff training costs in order to encourage SMEs to purchase and master new technologies and acquire modern management methods. Training services contracts do not exceed an average of US$30,000 representing an average training duration of six months.

The PRONAFOC is a mechanism designed to channel funds to SME enterprises that would otherwise find it hard to finance in-service training activities. Eligible SMEs are those with less than 100 permanent staff members and firms which are subject to the payment of the *patente forfaitaire*.

The agency managing PRONAFOC is CNFCPP (*Centre Nationale de Formation Continue et de Promotion Professionnelle*). The government permanently monitors the effectiveness of PRONAFOC in order to assess possible reforms to the current financing mechanisms. A revised procedures manual has thus been adopted in 1998. Despite overall satisfactory performance, there is a need to focus on the demand-side rather than the supply-side of SME's needs in training. To that effect, the *Instrument C* of FIAS has recently been transferred to CNFCPP, which provides PRONAFOC with a mechanism for identifying training needs by the enterprises. *Instrument C* is a demand-driven financing mechanism of in-service training activities, which is experiencing a strong development.

V – OTHER GOVERNMENT PROGRAMS

FITI - Fonds d'Incitation à l'Innovation dans les Technologies de l'Information

The government created the FITI in February 1999 to support small scale investments by the private sector in information technologies. The government will co-finance up to 49 percent or a maximum of TD 200,000 of information technology projects if the following conditions are met: (a) the project is approved by and presented to FITI by a venture capital firm (SICAR), and the SICAR commits to provide at least 30 percent of the start up capital of the project; (b) the investor provides at least 2 percent of the start up capital; and (c) FITI's cofinancing is not higher than the share of the SICAR in the start up capital.

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[16] Supply management, maintenance, computer skills, quality management, marketing, accounting, financial management, production management and productivity improvement.

[17] Textile and clothes, shoes and leather, construction material, electronics, mechanics and electricity, heating, refrigeration and air conditioning, plastic and rubber.

FODEP - Fonds de Dépollution

The purpose of FODEP, which was created in 1992, is to provide financial support to firms undertaking re-conversion programs aimed at fighting pollution. Firms receive a grant, amounting to up to 20 percent of total project cost. In addition, firms which are eligible to FODEP financing may benefit from bank credit with 3 to 7 year grace period and are exempted from duties and taxes on the equipment.

In order to properly target beneficiaries of FODEP funds, eligible firms are enterprises which have been subject to a pollution diagnosis carried out by the ANPE (*Agence Nationale de Protection de l'Environnement*), have presented a project feasibility study and a time schedule for re-conversion approved by the ANPE. In addition, to avoid misuse of funds, at least 30 percent of total project cost has to be financed with own funds.

CONCLUDING REMARKS

International experience shows that SME support programs could be more effective if they:

- **focus on products rather than institutions** in developing innovative service products tailored to different segments of the small enterprise population;
- **aim to remove the key constraint: information** - recognizing that small enterprises need specific information leading to business transactions, as well as knowledge of the potential payoff from investing in business services;
- **forge partnerships with the private sector** in building upon existing private sector initiatives and using private firms for more effective delivery of business services; and
- **emphasize a performance-based approach** to business services in developing comparable indicators of financial performance, business services market development, and impact.

Some of these programs, such as EMAF, have incorporated these principles, but others should be re-directed.

Annex 6

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Telecommunications

The telecommunications sector in Tunisia is characterized by the pervasive monopoly of *Tunisie Telecom*, exclusive provider of fixed and cellular voice services, only partially independent from the Ministry of Post and Communications. Some liberalization of data and Internet services occurred, as competing providers offer data services without bypassing the network of Tunisie Telecom. Private networks are only marginally liberalized as firms develop their own internal data and voice network but cannot independently connect different corporate premises. As a result of the absence of competitors and substantial State involvement, many benefits for private firms, typically arising from a competitive telecommunications sector, have not yet materialized.

Overall telecommunications revenues show that, for the GDP level of Tunisia, there is room for sector growth and new services would find a receptive demand. Primarily, growth will be induced by enhancing revenues from existing lines, rather than adding new fixed line subscribers. Although fixed line subscribers increased substantially in the past (at a pace which will not be sustainable in the future) and network reliability improved (though still far from OECD standards), there is still a wide disparity in access between urban and rural areas. Despite recent tariff reductions, rates are unbalanced and international calls are expensive. As concerns mobile telephony, GSM coverage reaches more than half of the population, but there is shortage of installed capacity. For this reason, Tunisie Telecom is planning to increase the GSM network size fourfold, expecting high demand. However, at the moment, GSM supply is rationed, so that only medium and large corporate users have access to the service. Since the price of GSM services is higher than OECD standards, especially for large users, Tunisie Telecom is clearly exploiting monopoly rents. Pre-paid cards and GMPCS services are still absent. Data and Internet services are severely underdeveloped. Limited liberalization and entry barriers slow down Internet penetration and make services expensive. In general, the high cost of leased lines is hindering data services growth and negatively affecting the development of private networks, data services and telecommunications-intensive services, such as outsourcing and telemarketing.

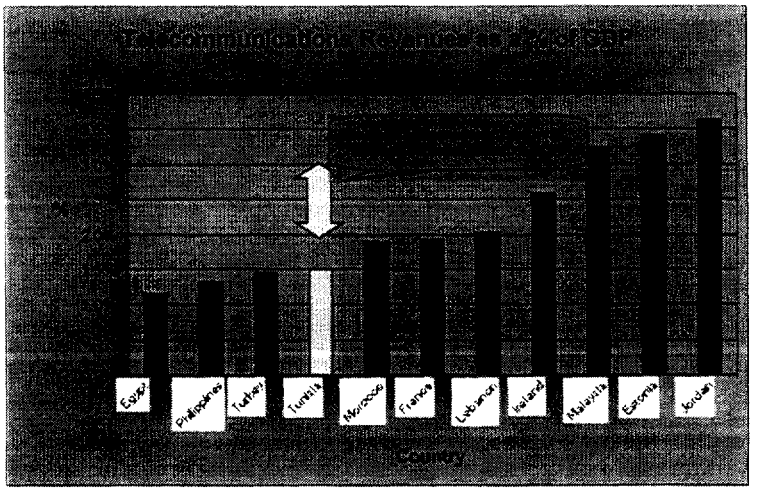
Absence of competitive provision of basic and advanced services, high import duties on telecommunications equipment, excessive regulation in all market segments and limited autonomy of Tunisie Telecom are major bottlenecks to private sector development. These constraints create competitive disadvantages for Tunisian firms. Therefore, the competitiveness of private sector users is harmed by high costs, lack of innovation and moderns services and, to a lesser extent, poor quality.

The Government is currently tackling some of these issues. An offer made by the Government to WTO is likely to push forward the liberalization agenda, especially in cellular and data services. However, there is concern that Tunisia will not be able to comply with WTO obligations, given the delay in implementing relevant regulations. Suggested policy reforms include a privatization program and the proposal of a new telecommunications sector law. The present agenda for reform can be more effective through the following measures, that are likely to direct address the main bottlenecks to sector development: immediate liberalization of GSM, GMPCS and VSAT services, competition in the provision of alternative infrastructure, complete liberalization of Internet services and private networks and increased independence for Tunisie Telecom. The sector would also substantially benefit from deregulation and simplification of existing administrative procedures.

1. Background

The global telecommunications industry has undergone several changes in the last decade, affecting introduction of new technologies, sector structure and regulation[18]. Private corporations in developed countries are major beneficiaries of telecommunications sector changes. For example, the falling price of international and long distance communications boosts the competitiveness of export-oriented firms, the increasing range of mobile communication services has satisfied the emerging corporate mobility needs, and the integration of voice and data in private networks enables enterprises to optimize the production process and improve communication with suppliers, thus increasing overall productivity. Furthermore, telecommunications services, such as telemarketing, subscriber handling centers and outsourcing services, enhance the effectiveness of marketing and client-relation activities, reducing, at the same time, their fixed cost. The establishment of modern and reliable telecommunications services influenced the location of industrial activities: cost, quality and reliability of communications guide corporations in their foreign direct investment decisions. Telecommunications has thus emerged as a critical factor in corporate competitiveness enhancement and private sector development. Some developing countries soon have followed (or in some cases, like Chile, anticipated) the liberalization trend, giving local enterprises the same competitive advantages enjoyed by firms in developed markets.

Changes in technology has led to a substantial reform in sector regulation. Technology-enabled new services, and new options for the delivery of basic voice communications services, induced most industrialized countries to replace existing vertically integrated monopolies with an open and liberalized market. As illustrated in this paper, unless the new regulatory requirements are internalized, the progress achieved by Tunisia in the sector will remain incomplete and would not support private sector competitiveness,



To meet the requirements of a globally integrated private sector, the telecommunications sector in Tunisia shows the presence of room for growth. Overall telecommunications revenues as a percentage of Gross Domestic Product (GDP) are slightly less than 1.5 percent. This value, higher than some countries in the region (for example, Egypt and Turkey), is nonetheless lower than most industrialized countries, where the sector represents between 2 percent and 3 percent of GDP. Moreover, in other dynamic and emerging economies, such as Chile and Malaysia, the weight of the sector over GDP exceeds 3 percent. In these cases, telecommunications has been an engine for growth, developing faster than other sectors and creating the conditions for future development (e.g., banking system in Chile).

[18] The quality of fixed line services has been enhanced by digitalization and optical fiber and technical progress in transmission substantially reduced the cost of long distance communications. Technological change has introduced commercially viable alternatives to fixed line communications, such as wireless cellular and satellite communications. Technology also enabled the strong growth of corporate data services, with the widespread use of the Internet Protocol. The joint impact of technical progress and market liberalization has thus encouraged the emergence of new entry for basic voice services, and the birth of a highly competitive environment for value-added and data services.

Tunisia considerably expanded its fixed line network, at a rate that will not be sustainable in the future[19]. For this reason, future sector growth will be measured by the ability to increase sector revenues through the introduction of new services in a competitive environment, rather than by the mere expansion of the network of Tunisie Telecom. Future development will be achieved mainly by competitive providers of wireless, Internet and data services, capable of matching the demand of private enterprises, increasing their competitiveness and generating overall growth.

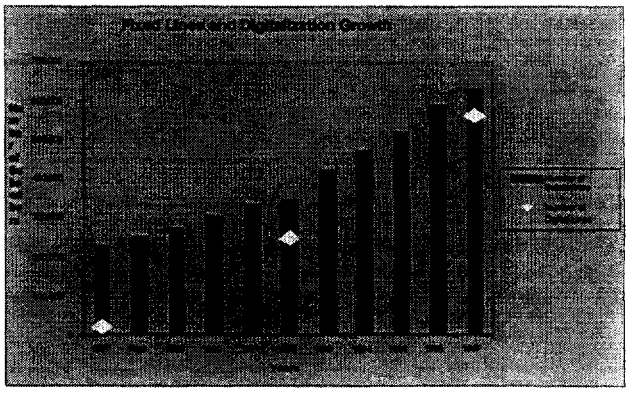
At the moment, the Ministry of Communications is responsible for the policy and regulation of the telecommunications sector. Fixed and cellular voice and data services are operated by Tunisie Telecom, a public sector entity[20], formally separated from the Ministry of Communications, under a monopoly established by Loi N. 77-58 of August 3, 1977, which introduces the *Code des Telecommunications*. Limited liberalization of data, Internet and private networks has been introduced.

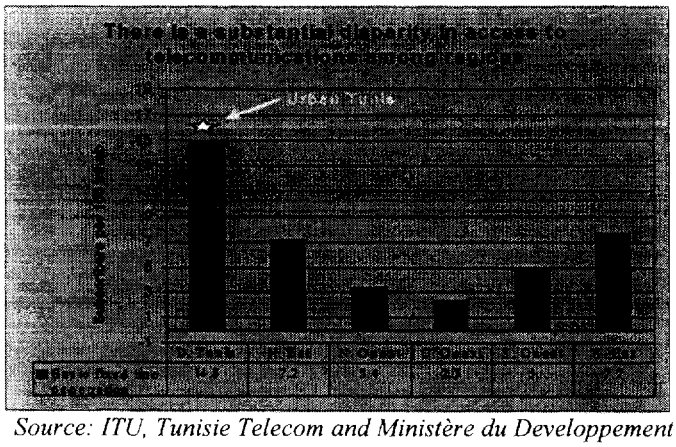
The following section illustrates the present status of the telecommunications sector and the progress made in the last years in fixed line, mobile, Internet and data, private networks and telecommunications-intensive services. The next one benchmarks price and quality of these services with regional and OECD countries.

2. Status of the Telecommunications sector in Tunisia

Fixed line services

In the years 1994-1998, Tunisie Telecom substantially increased the number of subscribers to fixed line services from 475,000 to about 900,000 (end 1998). Between 1988 and 1998, digitalization grew. While in 1988, no more than 10 percent subscribers had access to a digital line, the number exceeded 70 percent in 1992 and 90 percent at end of 1998.





Major differences exist across regions: while the Tunis region (Tunis, Ariana and Ben Arous) has a penetration of 14.8 percent[21] and Centre-Est reaches 10.3 percent, due to its high urbanization[22], the penetration in rural areas is very low, especially in Nord-West (3.4 percent) and Centre-West (2.3 percent).

Source: ITU, Tunisie Telecom and Ministère du Developpement Economique

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[19] Fixed line penetration (number of subscribers per 100 inhabitants) grew from 5.3 percent to 8.2 percent between 1994 and 1998. This value is relatively high by regional standards, better than Morocco (about 5 percent) and Egypt (5.2 percent), but lower than Lebanon (about 18 percent) and Turkey (25 percent).

[20] Tunisie Telecom is an EPIC, *Etablissement public à caractère industriel et commercial*

[21] Over 18 percent in the city of Tunis.

[22] Sousse, Monastir, Sfax, Mahdia.

The quality of services has improved, but is still sub-optimal. The fault rate[23] improved over time, as it decreased from 70 percent to 40 percent between 1997 and 1999. In parallel, customer assistance has improved as now over 85 percent of faults are repaired within 48 hours (Ministry of Communications). Without diminishing the importance of the quality improvements made in the recent past, the private sector is still only partially satisfied by the quality of service. Although official statistics on Call Completion Rate are unavailable, the enterprise survey found that a substantial share of commercial users need to dial several times before being connected.

How many times do you have to dial a number to get a connection?		
	Local	*Long-distance*
1	71%	60%
2	21%	22%
3	6%	11%
> 3 times	2%	5%

Resale of telecommunications services is prohibited. A minor form of resale is allowed through Centres Publiques des Telecommunications known as "Taxiphones", authorized by Decree 98-202 of January 26, 1998 and operated by private individuals or companies and offer retail access to voice telephony, fax, videotex and Internet services.

Mobile Services

Analogue mobile communications was introduced in Tunisia in [1991], but the number of connected subscribers stagnated at about 5,000 for several years. However, mobile services have shown a robust growth over the last 12 months, thanks to the deployment of a GSM network, inaugurated on March 21, 1998. GSM network capacity is 50,000 lines and the number of connected subscribers exceeds 40,000. As capacity is quickly running out, Tunisie Telecom recently launched a tender for network extension to 100,000 installed lines, expecting strong demand. As present demand exceeds available supply, Tunisie Telecom introduced allocation principles by which business customers are preferred to residential ones[24].

Network deployment first covered main cities and coastal areas, where most of private business activity is concentrated. Coverage expansion followed these phases:

Phase	**Period**	**Coverage**	**Coverage (% population)**
1	December 1997-March 1998	Grand Tunis, Hammamet, Nabeul	25%
2	April-May 1998	Bizerte, Sousse, Sfax, Gabes	40%
3	June-August 1998	Djerba, Zarzis, Medenine	44%
4	September-October 1998	Mahdia, Tozeur, Ras Jerid, Kelibia, Raf Raf	48%
5	November 1998- February 1999	Extension outside urban areas	

Source: Tunisie Telecom.

[23] The fault rate is defined as number of faults per 100 lines per year.

[24] According to the enterprise survey, 67 percent of the businesses used mobile phones. Most of those who did not use mobile phones chose not to do so (27 percent of the total), and only 6 percent of did not use the mobile phone because they requested one, but did not receive it yet. The low share of respondents waiting for a mobile phone reflects the decision to allocate mobile phones on a priority basis to (mainly large) business customers. This results would change if we were to consider Small Office, Home Office (SOHO) customers. Most respondents indicated that they used mobile phones because they were more comfortable, and only less than 10 percent of mobile phone users justified their choice with the low reliability of fixed lines.

Roaming services are presently offered to GSM subscribers at 4.1 USD/Month. Agreements exist with more than 40 operators in Europe, Africa/Middle East and Asia. Pre-paid cards, presently contributing to most of the digital cellular growth in emerging markets, are not present in Tunisia yet[25].

The presence of Global Mobile Personal Communications Service (GMPCS) services is not yet provided by the regulatory framework but commercial providers are already negotiating with local authorities and Tunisie Telecom. Besrour Intercom is the only licensed paging operator, serving about 5,000 subscribers[26].

As concerns satellite services, Tunisia is an active member of several international consortia, such as Rascom, Thuraya and Oxigene.

Data and Internet Services

Liberalization of data and Internet services is limited[27]. Tunisie Telecom, through Agence Tunisienne de l'Internet (ATI), operates the backbone network[28], over which value-added, data and Internet services are offered, with limits, by private operators. Specifically, as concerns Internet, only two private commercial providers, Globalnet and Planet Tunisie, have been licensed, and five public sector bodies are exclusive Internet providers to public sector clients. ATI acts as regulator of the Internet segment, determining prices, service conditions and regulating the allocation of private licenses.

In terms of Internet services, it appears that the two existing ISPs developed a good offer, comparable to the European one, ranging from traditional Web and e-mail access to Webpage development, hosting and offer of information and commercial services over the Net. The two providers are also engaged in developing Internet applications for e-commerce (especially in the agro-business area), and IP-based Virtual Private Networks.

Although a precise data services analysis is outside the scope of this work, we can stress some progress has been made in the establishment of a modern and reliable infrastructure for data services in the area of banking[29].

Private networks

Private companies are allowed to lease capacity from Tunisie Telecom and transmit services[30]. They can use the network for transmission of data for their own use (private networks), or to sell data services (for

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25 Pre-paid cards in markets like Portugal, Greece and Lebanon, marked the transition from a niche to a mass market, extending access to residential and SOHO customers, while reducing bad debt risk. The unexploited potential of these services is evident if we consider that the share of pre-paid customers over total customers exceeds 57 percent in Portugal, 50 percent in Lebanon, 35 percent in Greece and Italy.

26 Paging coverage reaches the coast and internal region and is available in main cities[26] and surrounding areas. Services will be extended towards Centre-Est and Nord-Ouest regions.

27 Data services have been partially liberalized by *Arrêté du ministre des communications du 22 mars 1997, portant définition et classement des services à valeur ajoutée des télécommunications.*

28 Tunisie Telecom currently offers Digital leased lines (64Kbits/s and 2M), MIC R2, Frame Relay (FR), ISDN (called RNIS, Réseau Numérique a Integration des Services)

29 Different banks have already established a high capacity network for their electronic payment system. The Government estimates that about 1,200 banking agencies are now connected to ISDN and X25 data networks. Moreover, the SIBTEL network offers ISDN and high capacity leased lines for data access.

30 Corporations are free to install their own PABX, use terminal equipment of their choice (upon MoC approval), lease lines from Tunisie Telecom and connect different corporate premises, and establish and connect Local Area Networks (LANs). Both basic voice and data services can be provided over private networks. Corporations are *not* free to develop their own communications infrastructure: for example, they cannot connect different corporate premises bypassing the network of Tunisie Telecom. Similarly, computer networks can only be connected using the infrastructure of Tunisie Telecom. Finally, the use of Very Small Aperture Terminals (VSAT), even for private use, is not allowed.

example, banking services to clients). Neither for private use, nor for resale, are private companies allowed to either build their own transmission capacity or to have an independent international gateway.

Notwithstanding these limitations, the market for installing and operating private networks is booming. Typical clients are foreign firms, international organizations and embassies, but also many local SMEs. The provision of equipment and installation of private networks is competitive. Major vendors, such as Ericcson, Alcatel, Nokia, Motorola, Siemens Lucent and Nortel, are present in Tunisia and primarily serve large enterprises. Moreover, several Tunisian small firms, buy equipment from major vendors, "package" and resell it to clients, typically local Small and Medium Enterprises, SMEs.

Operators estimate the size of this market between 15 and 20 M USD, with an annual growth rate exceeding 100 percent. Its encouraging dynamism is due to high potential responsiveness of corporate demand. If present restrictions are removed, this segment is likely to produce further substantial growth, enhancing private sector competitiveness[31].

Telecommunications-intensive services

In several developed and emerging economies, telecommunications-intensive services play a substantial role by strengthening the competitiveness of private corporations. In addition, telecommunications-intensive services are themselves substantial creators of employment and local growth. Examples of these services are:

"free phone" services
telemarketing
help-desk services
outsourcing services
customer handling services

Through these services, private corporations have the possibility to decrease their fixed operational costs and improve efficiency (outsourcing), sophisticate their marketing knowledge, analysis and outreach (telemarketing) and improve product quality and customer satisfaction (customer handling, help-desk, "free-phone" services). Therefore, these services play an essential role in improving corporate performance.

The presence of telecommunications-intensive service services in Tunisia, at the moment, is extremely limited or completely absent, even if it is allowed by law.

3. Telecommunications Sector Performance and International Benchmarks

The benchmark of sector performance with regional and OECD countries highlights the following elements:

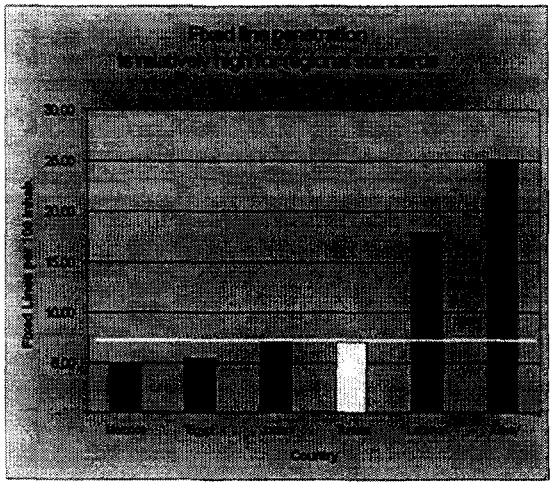
Fixed line penetration is in line with regional standards with limited growth potential
Prices of international calls are high for OECD standards
Fixed line network quality and reliability improved but is still far from best practice
Mobile services are underdeveloped and more expensive than international standards
Leased lines prices are considerably higher than European benchmarks

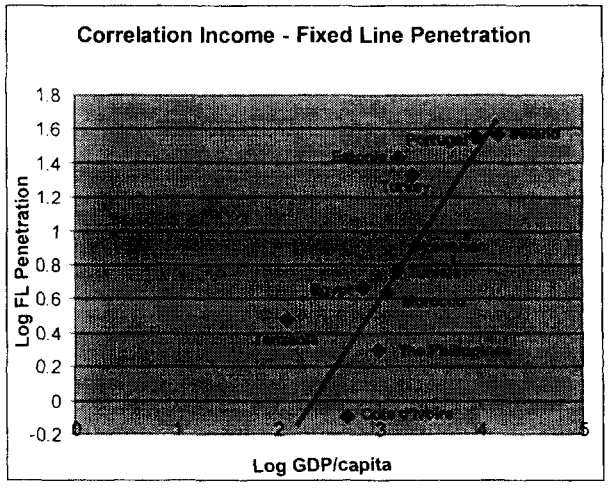
[31] A recent study, of several Latin American markets by the Economist Intelligence Unit, shows that, when a competitive environment for corporate networks is established, major competitiveness gains are enjoyed by local enterprises. Differences in the degree of competition of private networks translate also into differences in Foreign Direct Investment (EIU – Pyramid Research Report, Corporate Network and Strategies in Latin America, January 1999).

Internet is underdeveloped and expensive compared with international standards.

Fixed Line Services

Fixed line penetration is relatively high for regional standards. Differences in network development are explained as a function of purchasing power differentials across countries. In this light, basic fixed line penetration seems broadly in line with the purchasing power of the country but the expansion of lines in recent years will not be sustainable in the long run. Sector growth, in particular, will be driven by enhancement of present revenues per line, rather than from addition of new subscribers.





Source: ITU.

As regards price of basic fixed line services, the tariff structure appears unbalanced. Long distance and international communications are priced over cost and local calls and monthly subscriptions are subsidized. This tariff structure is not efficient, as it does not reflect the real cost of provision of services.

In particular, international communications is expensive and constitutes a competitive disadvantage for export-oriented firms. However, compared with other regional operators, the price of international communications is not dramatically higher, even if there are better performers. The gap widens when comparing Tunisia with European operators that have radically changed their tariff structure to face competitive challenges.

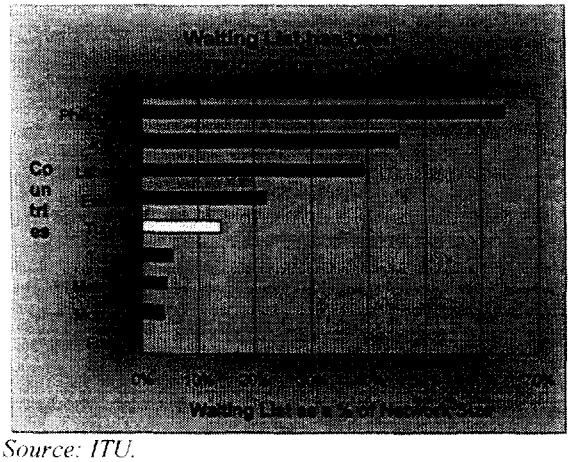
Operator	Tunisie Telecom	Etisalat	Telkom SA	Itisalat-al-Maghreb	Telecom Italia
Call to USA (USD/min.)	0.87	[1.25]	0.82	[1.26]	0.37
Call to France (USD/min.)	0.72	[1.25]	0.82	[0.63]	0.37

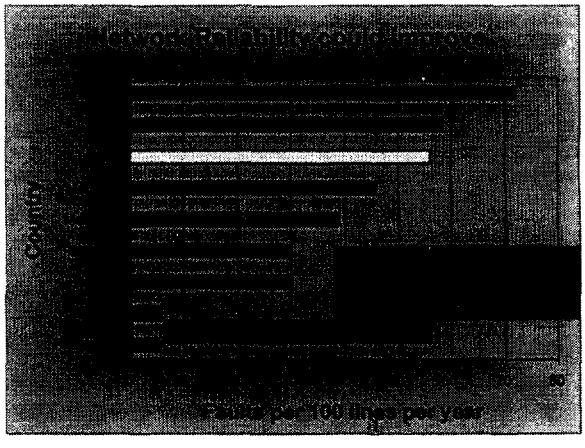
Source: corporate information.

As concerns quality of service, network reliability, measured in terms of fault rate (number of faults per 100 lines per year) shows room for improvement. In fact, the fault rate exceeds 50 percent, while other emerging economies (e.g. the Philippines), have brought the fault rate close to OECD standards (4-5 percent).

Past growth rate reduced the waiting list, which, however, remains still close to 15 percent of overall network size. This result might seem encouraging, if compared to that of other similar economies (e.g., Estonia, Lebanon). However, other developing countries, such as Morocco, Turkey and Malaysia, have successfully reduced the waiting list to less than 5 percent. This value is still sub-optimal, since OECD countries show a level between 0 percent and 2 percent. In some cases, this result should be coupled with the penetration level of mobile communications (discussed below). Countries like Estonia or Lebanon, with a long waiting list for fixed line services, developed a mass market for mobile communications, still absent in Tunisia, compensating the unmatched demand for fixed line services.

In this respect, the entrepreneurs surveyed stated that many of them had to wait for very long periods until they received a telephone line. Indeed, 37 percent said that they had to wait for ten weeks or more, 34 percent for between two and ten weeks, and only 29 percent received a line in two weeks or less. However, these statements usually refer to the period when the business was set up, and the current waiting time may be lower.

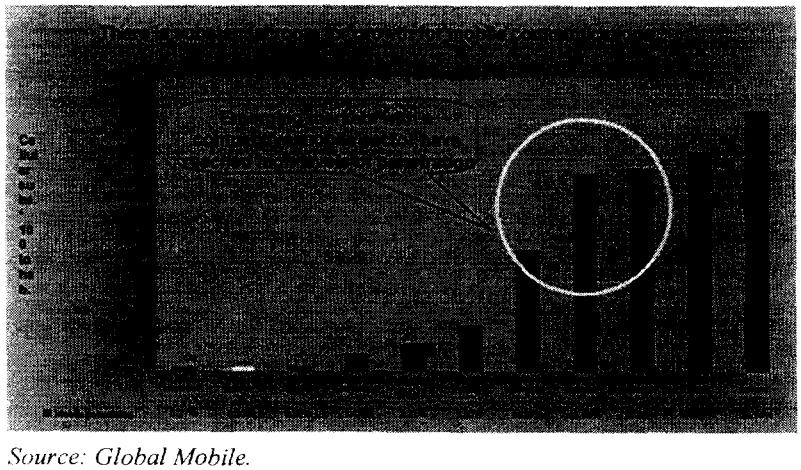




Source: ITU.

Mobile services

As concerns cellular services, the table below shows that penetration is low compared to other emerging economies (such as Lebanon, Estonia, Malaysia), which brought penetration close to OECD levels.



Source: Global Mobile.

The following table lists the range of services offered by Tunisie Telecom and their price, compared to commercial offers of other operators in the region.

Tariffs in US$	***Tunisie Telecom***	**Mobilnil Classic**	**Mobilnil 180**	**Turkcell Professional**	***Libancell (*)***	***Itissalat-al-Maghreb***
Installation fee	127.05	352.94	352.94	29.16	500	31.57
Monthly Fee	16.94	33.82	55.88 (180 free min.)	19.44	25	15.8
Mobile-fix call (US$/min.) (peak-off peak)	0.212 0.148	0.16 0.13	0.12 0.09	0.16 0.12	0.078	0.28 0.14
Voicemail	Free	Free	Free	NA	2-8	Free
Call forward	Free	Free	Free	NA	NA	1.05
Call waiting	0.847	Free	Free	NA	NA	1.31
Call barring	0.847	2.94	2.94	NA	NA	3.15
CLIP	0.847	Free	Free	NA	6	
Fax	0.847	NA	NA	NA	10	6.3
Data	1.694	NA	NA	NA	10	6.3
Detailed billing	1.694	NA	NA	NA	2	1.57
Roaming	4.235	NA	NA	NA	NA	4.2
Pre-paid card	No	Yes	Yes	NA	Yes	No
Cost of 100 minutes (**)	34.9	44.3	55.8	33.4	32.8	36.8
Cost of 360 minutes (***)	85.58	87.8	75.68	72.2	53.08	99.8
Cost of 1,000 minutes (****)	212.9	186.3	146.8	169.4	103	260.8

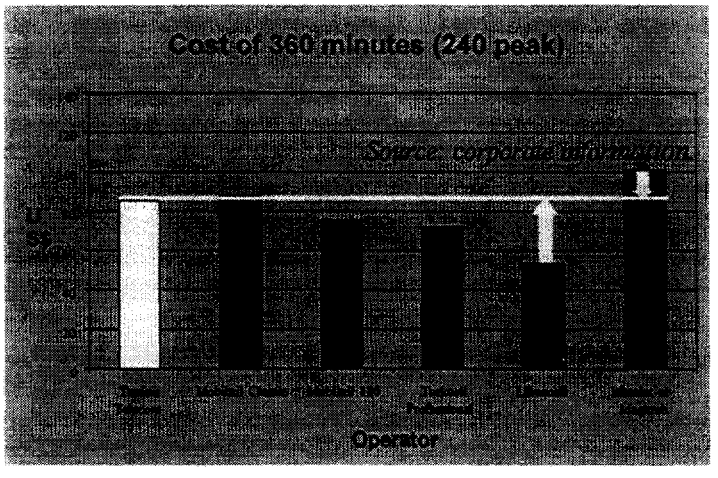
Exchange Rates: D/USD=0.847; LE/USD=0.294; 1000TLit.=0.0243; USD/DH=0.0243.
NA: information on the service not available; No: service is not present; (*) End 1998;
(**) Cost of 100 minutes, of which 50 peak and 50 off peak; (***) Cost of 360 minutes, of which 240 peak and 120 off-peak
(****) Cost of 1,000 minutes, of which 750 peak and 250 off peak

The price comparison among different providers of mobile telephony services is not simple, due to different commercial offers in competitive environments. The tariff structure of Tunisie Telecom presents one of the lowest monthly fees in the region, slightly less than 17 US$/month. On the contrary, the airtime charge, the price paid per minute of conversation, is the highest (with the exception of Morocco). The joint evaluation of subscription and airtime fee shows that, apart from very low usage customers, Tunisie Telecom is more expensive than most of its regional competitors. In particular, residential, SOHO and large clients of Tunisie Telecom pay more than subscribers to other regional operators. The cost for a customer of Tunisie Telecom consuming 360 minutes of local calls would slightly exceed 85 USD, more than the price of a user of Mobilnil (Egypt, 75.7 USD), Turkcell (Turkey, 72.2 USD) and Libancell (Lebanon, 53.1 USD). Given that the price per minute of Tunisie Telecom is higher than the price in these countries, these differences tend to increase for heavy users, such as business customers. For example, 1,000 minutes of use cost about 213 USD for a subscriber to Tunisie Telecom, more than double the price

paid by a subscriber to Libancell, and up to 50 percent more than the price paid by an Egyptian or a Turkish customer.

Only for residential customers, estimated to use the mobile phone for less than 100 minutes a month, the offer of Tunisie Telecom appears broadly in line with regional competitors, being slightly more expensive than the Turkish and Lebanese offers, but better than the Egyptian and the Moroccan ones[32].

Considering global price benchmarks, the offer of Tunisie Telecom seem to be broadly in line with that of European operators[33], but much higher than the price paid by an American customer[34], notwithstanding the lower purchasing power.



Leased lines, data and Internet services

The price of leased lines is publicly available and is calculated on the basis of a 64 Kbits/s line, as shown by the following table[35]:

Leased Lines Prices	64 Kbits/s	**2 Mbits/s**
Installation	600 D	600 D
Monthly Fee - Urban (<10 Km.)	500 D	4,250 D
Monthly Fee – (Between 10 Km. And 50 Km.)	1,000 D	8,500 D
Monthly Fee – (Between 50 Km. And 100 Km.)	1,800 D	15,300 D
Monthly Fee – (> 100 Km.)	2,500 D	21,250 D

Source: Tunisie Telecom.

[32] We need, however, to bear in mind that the residential users are not, *de facto*, gaining any benefit from these tariffs, since the Government decided to segment the offer and limit the availability of phones for residential users. In this way, Tunisie Telecom is clearly exploiting monopoly rents, overcharging business customers and temporarily preventing residential ones from having access to services.

[33] For example a user of Telecom Italia Mobile would pay 97.5 USD for 360 minutes of use, while a user of Stet Hellas would pay about 80 USD and a user of Omnitel 79 USD

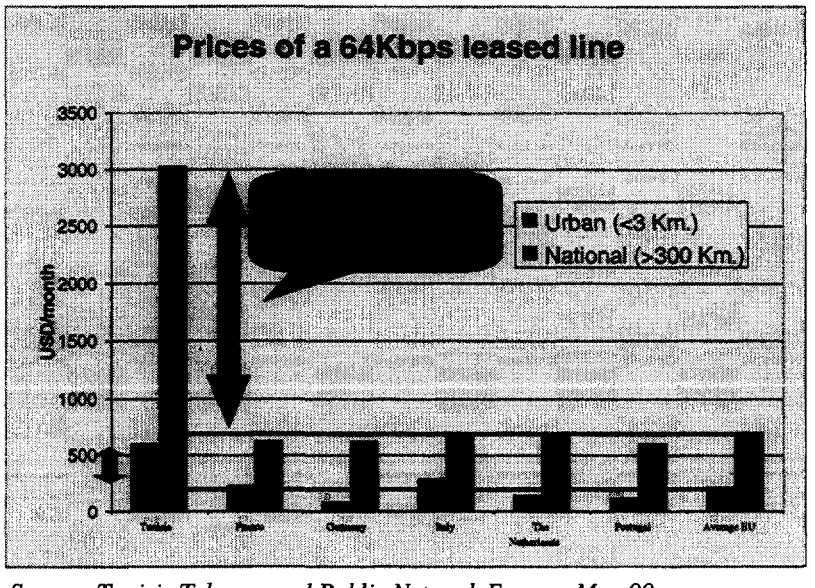
[34] print Spectrum offers 360 minutes for 49.99 USD.

[35] Socially relevant categories of users, like libraries, universities and research centers are entitled to a 30 percent discount, which, remarkably, is also enjoyed by commercial ISPs.

The price of a leased line is substantially higher than OECD standards: for example, a 64Kbits/s urban line costs about 600 USD, about three times the European average. The gap with OECD countries increases to 5 times for a 300 Km 64 Kbps/s leased line. Similarly, a 2Mbps leased line costs over 5,000 USD/month for a distance shorter than 3 Km. in Tunisia, while the European average is less than 1,000 USD. The price of a 2M leased line for 300 Km. is again substantially higher than in developed economies: less than 5,000 USD/month in Europe, more than 25,000 USD/month in Tunisia.

Price of a leased line (USD)	**64 Kbps/s**		**2 M/s**	
	Urban (<3 Km.)	National (>300 Km.)	Urban (<3 Km.)	National (>300 Km.)
Tunisia	605	3,025	5,142	25,712
France	232	619	775	4,600
Germany	87	629	484	3,922
Italy	290	697	847	7,361
The Netherlands	140	678	1,300	4,358
Portugal	116	595	619	5,036
Average EU	213	697	775	4,843

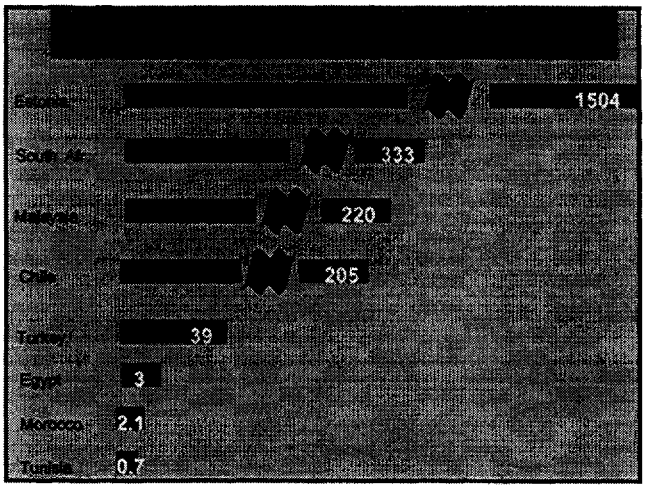
Source: Tunisie Telecom and Public Network Europe, May 99.



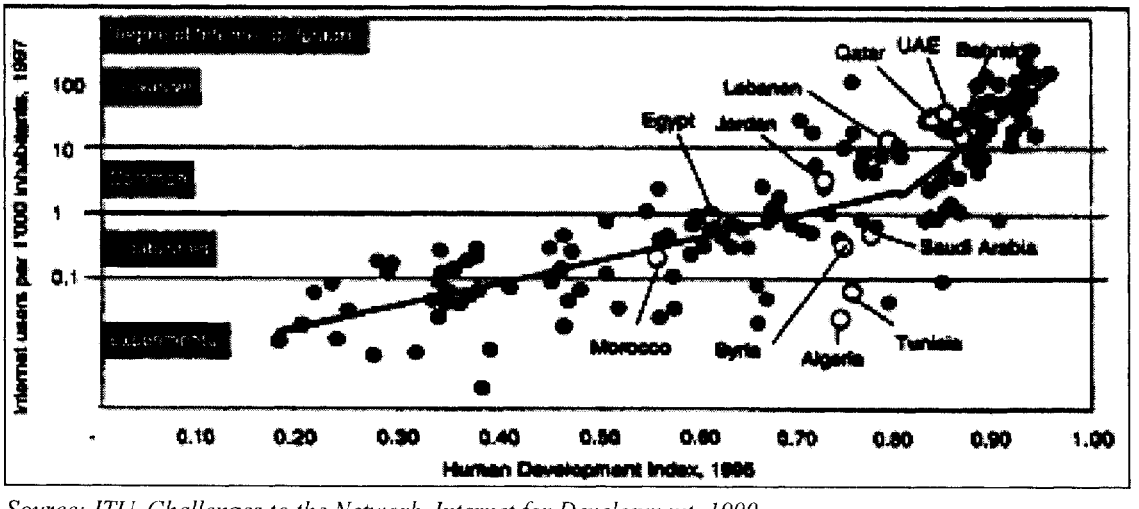
Source: Tunisie Telecom and Public Network Europe, May 99.

The Internet segment is severely underdeveloped. According to private sector sources, there are, according to the Ministry of Communications, , about 30,000 subscribers, among which about 5,000-10,000 are non-paying users. The following table shows the magnitude of the delay. As of January 1999, there were less than 70 Internet Hosts in Tunisia, which translated into 0.7 Hosts per 100,000 inhabitants. This value is low if compared to Morocco (three times higher) and Egypt (four times higher). Furthermore, emerging economies like Chile and Malaysia have more than 200 Hosts per 100,000 inhabitants, 300 times more than Tunisia.

Source: Network Wizards, January 1999.



The development of Internet in Tunisia is inadequate, if compared to its real potentialities. In particular, a recent ITU study[36] defines the state of development of the Internet segment in Tunisia as "*experimental*", showing that countries with the same Human Development Index[37] have a higher Internet penetration.



Source: ITU, Challenges to the Network, Internet for Development, 1999

[36] International Telecommunications Union, *Challenges to the Network, Internet for Development*, 1999.
[37] The Human Development Index is based on three indicators: life expectancy, educational level and GDP per Capita.

The price of main Internet services is expensive. The access monthly fee is about 17.2 USD/month (itself low for international standards) but is to be added to a surcharge of about 8 US cents per minute paid by subscribers dialing the ISP access number.

Subscription Type	Connection fee	Six-months	Surcharge per minute	One-year	Services
E-mail	33.3 USD	79.1 USD	[NA]	137.5 USD	E-mail, Telnet, Newsgroup
Web	33.3 USD	[104.1 USD]	[0.08 USD]	[208.3 USD]	WWW, E-mail, FTP
Residential	33.3 USD	104.1 USD	[0.08 USD]	[170.1 USD]	E-mail, Telnet, Newsgroup, WWW, FTP, IRC
Professional	33.3 USD	229.1 USD	[NA]	395.8 USD	E-mail, Telnet, Newsgroup, WWW, FTP, IRC

Source: Planet Tunisie.

As a result, a Tunisian residential customer with 20 hours/month of Web access would pay 115.6 USD, against 10 USD paid by a Erols subscriber (US) and 15 USD paid by a Wanadoo subscriber (France)[38].

4. Constraints to Private Sector Development

Benchmarking price, quality and range of services offered in Tunisia with international experiences has shown, in most areas, the presence of several potential constraints to private sector development. The competitiveness of private sector operators is harmed by high costs, lack of innovation or absence of moderns services and, to a lesser extent, poor quality.

In particular, the following constraints to private sector development can be listed:

- Concerning fixed line services, the high price of international communications is a clear limit to the competitiveness of local enterprises, most of which are export-oriented, and would substantially benefit from rate rebalancing and removal of entry barriers, that would align the price of communications with costs.
- In the area of mobile services, scarce GSM development, and, notably, the absence of pre-paid cards, are a direct effect of the lack of competitors. The cost of GSM services is higher than regional and, especially OECD standards and, places the local users at a competitive disadvantage. The market segmentation of GSM services is, in itself, an evident constraint to private sector development.

Concerning leased lines, the constraints to private sector development are multiple:

- Their high cost makes difficult the development of telecommunications-intensive services, as potential entrepreneurs are discouraged from initiating a private concern in this area, due to the high cost of their primary input, leased capacity.
- Providers of data and Internet services suffer directly from the high price of leased lines, an input for their business operations: the high costs of leased lines are directly translated by service providers into higher prices for final customers
- The underdevelopment of the data services is translated into high prices for access to services and limited choice for the consumer. According to international analyses, advanced services, or "knowledge-based services"[39] are most likely to be damaged by this underdevelopment. Among these, there is tourism, financial services, insurance, business and consulting services.

[38] This comparison does not consider differences in price of local access, a variable outside of the direct control of the Internet Services Provider and therefore, that should not be taken into account in evaluating ISPs performance.

[39] OECD, *Technology, Productivity and Job Creation*, 1996.

- The underdevelopment of all market segments where Tunisie Telecom is present is translated into scarce client orientation and failure to match existing demand, as witnessed in the case of fixed voice and cellular services.
- A cost that has emerged from meetings with telecommunications sector operators, and that has not been captured by international benchmark, is the high cost of terminals and Customer Premises Equipment (CPE). These high costs directly translates into high prices for terminal equipment, data terminals, cellular handsets, pagers, switches and routers.
- The constraints in the area of private networks mean high cost of corporate communications, absence of "state-of-the-art" solutions for corporate communications, such as Virtual Private Networks, and the scarce development of telecommunications intensive services, such as outsourcing or help desk, which considerably need modern private networks.

Telecommunications Sector Constraint	Private Sector Development Impact
1. High monopoly rent on international service	High price of international communications
2. Underdevelopment of GSM segment	High prices of basic service Absence of pre-paid cards High Unmatched demand
3. High leased lines price	High Internet prices High prices for private and data networks Scarce development of telecom intensive services
4. Underdevelopment of data services	High prices of data services Scarce development of telecom related services
5. Underdevelopment of all market segments where Tunisie Telecom is present	Unmatched demand for fixed and cellular services. Scarce client-orientation
6. High cost for terminals and CPE	High price of terminal equipment, data terminals, cellular handsets, pagers, switches.
7. Private Networks Limitations	High cost of corporate communications Absence of VPN Scarce development of telecom intensive services

5. Main Constraints to Telecommunications Sector Development.

The development of the telecommunications sector in Tunisia is hindered by the presence of several constraints, that require immediate action from GoT. These constraints can be grouped in the following categories:

Absence of competition in the provision of services

Tunisie Telecom is the only provider of local, long distance and international fixed and cellular voice services. The negative effects of monopoly in all basic services have been underlined in the previous section and affect both price and range of offered services. This is the single most relevant constraint to telecommunications sector development. In particular:

Fixe line services

Tunisie Telecom is exploiting a *monopoly rent on all voice services.* In particular, international services provide subsidies for local calls.
Mobile services: high prices and demand segmentation allow maximization of the monopoly rent on GSM services. Middle class users and SMEs, that would have the purchasing power to buy GSM services and would use them efficiently in their business operations, are directly hindered by the restriction of available supply.

Leased lines Internet and data services

Leased lines prices are substantially more expensive than European benchmarks, due to the absence of competitors. The high price of leased lines is an obstacle for the development of several telecommunications services, particularly data, Internet and value added services. Moreover, the level of competition for the provision of Internet services is inadequate.
Private networks: the absence of a market for leased lines is also limiting private networks potentialities, as private corporations cannot bypass the network of Tunisie Telecom. In this respect, several private sector operators have underlined the constraints to development of own infrastructure, as well as the high cost of leased lines, as major obstacles to access and use of data services.
Telecommunications-intensive services: The reasons for this underdevelopment, mentioned by private sources, are high cost of basic communications and leased lines and burdensome administrative procedures.[40]

Limited autonomy of Tunisie Telecom

Tunisie Telecom is only partially independent from MoC, responsible for pricing, service offer and network development. Tunisie Telecom is not organized according to the modern organizational structure of private firms. Limited autonomy translates in delays in service provision (e.g. unmatched demand for fixed and mobile services), scarce client-orientation (e.g. segmentation of the GSM market) and limited innovation in introducing new services (e.g. delay in the introduction of pre-paid cards).

High Import Duties

The existence of excessive duties on foreign telecommunications and informatics equipment has been stressed by private sector operators as a problem increasing penetration of services. High import duties translate into a higher cost for terminals and Customer Premises Equipment (CPE), with a negative impact both for service providers and for final users. For example, these high duties are reflected into a high price of switches, terminal equipment, data terminals, cellular handsets and pagers.

Eccessive Regulation

In those areas, data services and private network, partially open to competition, detailed regulation persists. MoC is responsible for indicating technical specifications for private and data networks and fixing the price of services. Excessive regulation, which involves the need of completing several overlapping forms and authorizations for provision of service, both at national and regional level, has been indicated as a main constraint to the private sector business development. Again, high administrative costs translate into higher prices for the final customer, or in delays in service provision. Moreover, excessive regulation is hindering the development of otherwise promising telecommunications intensive services.

[40] An analysis of the potential for these services in Tunisia would certainly deserve a separate study. However, it is important to remark that how some of the main driving sectors in Tunisia - tourism, agro-business and textiles - have been indicated by a recent IFC analysis as the sectors that, in developing countries, will mostly greatly benefit from the provision of competitive telecommunications-intensive and IT services.

Box 1: Example of Excessive Regulation: the Internet Segment

Most countries allow open entry in the Internet segment, which generates strong growth in the number of subscribers and reduction of prices. The choice of limiting to two the number of ISPs, the detailed regulation of prices and condition of service and market segmentation, constitute major obstacles to Internet development.

Market Segmentation: private and foreign customers are served by private ISPs, while Government institutions, educational establishments and research institutes are connected to public sector providers. Therefore, competition between service providers is limited, as private ISPs cannot target the whole range of potential clients;

Barriers to Entry: only two private operators have been licensed, Planet Tunisie and Globalnet, notwithstanding that seven other firms responded to the RFP. The entry barrier reduces the incentives for incumbents to act efficiently, keeping prices in line with the real costs of service provision;

Detailed Government Involvement: MoC reserves the right to strictly regulate ISPs activities, both in terms of technical specifications and prices, which requires specific approval.

6. Current Reform Efforts

Some of the constraints indicated in the previous section are currently tackled by GoT in the current reform efforts and, in particular, in the offer to WTO.

Offer to WTO

Tunisia made an offer to WTO on April 11, 1997, within the framework of the WTO Negotiations on Basic Telecommunications[41]. In terms of *limitations on market access* (e.g. the degree of liberalization in single market segments), Tunisia agreed to remove entry barriers according to the following timetable:

Offer To WTO Timetable for main services
Beginning year 1999
Telex
Packet-switched data transmission
Beginning year 2000
Mobile telephony
Frame relay services
Paging
Videoconferencing
Beginning year 2003
Local telephone distribution

In these segments, Tunisia committed to immediate free entry. Only where spectrum restrictions exist, such as cellular and paging, the requirement of free entry can be interpreted in the sense of allowing, through transparent procedures, only a limited number of operators in the market. In particular, a second cellular license by year 2000 will not necessarily be enough to make Tunisia compliant, unless Tunisia

[41] The main market access commitments of Tunisia are summarized in Supplement 1 to the *Schedule of Specific Commitments*.

proves there are spectrum limitations justifying this choice. As concerns data services, actual free entry (e.g. through a regime of simple authorizations) should be allowed. In particular, the choice of licensing only two private Internet operators might be interpreted already as a case of non-compliance with WTO obligations.

The absence of obligations concerning international communications should be noted.

In terms of *Limitations on National Treatment*, (e.g. the possibility that a foreign firm or a foreign national can offer services in the Tunisian market), Tunisia has agreed to remove barriers according to the same time schedule provided for Limitations on Market Access. This means that foreign companies will be able to act as competitors in the market segments indicated above, with the following relevant limitations[42]:

- The equity of the company, governed by Tunisian law, must be 51 percent owned by Tunisians;
- Foreign equity in Tunisia Telecom is authorized only after 2002, up to a maximum of 10 percent.
- The latter condition should not be interpreted as a commitment to privatize Tunisia Telecom, as WTO does not require conditions on privatization. In this light, the condition should be read as: "**if** Tunisia Telecom will be privatized in the future, foreign nationals will be able to own up to 10 percent of the capital after 2002".

Two observations concerning the offer to WTO of Tunisia can be made:

- The liberalization process fostered by this offer is an important step toward the creation of a competitive telecommunications environment, but it is not sufficient. It should be complemented by liberalization in basic services (local, long distance and international), as well as total removal of limitations on national treatment.
- There are reasons to be skeptical about the real capability of compliance with this offer. First, the new sector law, which should allow for competitive providers of cellular and other services, is not ready yet. The mission was prevented from having access to copy of this draft law. Second, even if the law will be approved soon, GoT still needs a substantial amount of time (according to international experiences, from one year to fifteen months), to complete the process that allows the open and transparent selection of a competitive bidder for mobile telephony services. As a result, the deadline of January 1, 2000 for the selection of a second mobile operator (as well as for the selection of paging, videoconferencing and frame relay operators), is unlikely to be respected.

Privatization Programme:

The privatization programme of the GoT has been recently presented in a policy document[43], that underlines past achievements (in telecommunications: privatization of Sotetel[44] through OPV in May-June 1998[45];) and the main principles of the program. Although the Government has not explicitly committed to a future privatization of Tunisie Telecom, this does not exclude that private participation will be introduced at some stage in the future.

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[42] Other conditions concern the compliance of foreign firms to Tunisian laws and regulations.

[43] Ministere du Developpement Economique, *Privatisation*, Tunis, Juillet 1998.

[44] Sotetel is specialized in telecommunications network maintenance and installation of corporate networks. It was formally part of the MoC.

[45] Other actions regarding the increase of private participation in the sector are the creation of more than 4,400 telecommunications public centres and 113 privately run postal agencies. In addition, several public centres (Publinet) offer Internet access. Another initiative aimed at strenghtening the local entrepreneurs in the ICT sector, is the creation of Parc Technologiques de Communications (technology parks).

7. Proposed Solutions and Options

Both telecommunications sector development and private sector end users, would benefit from the introduction of liberalization and privatization in all market segments, following the trend of OECD and many developing countries. In particular, it seems crucially important that GoT reinforces the WTO commitments and the privatization programme.

The following measures could be integrated in the Government's reform programme:

- *Immediately liberalize GSM, GMPCS and VSAT services, leased lines and alternative infrastructure*:
  - These measures should be undertaken without any delay. On one hand, opening up these segments to new competitors would attract domestic and foreign private investment, create employment, reduce prices and develop new services. On the other, market entry would generate an enlargement effect, without harm for the revenue stream of Tunisie Telecom.
  - GSM growth, in particular, will bring additional revenues to Tunisie Telecom, in form of interconnection and revenue sharing agreements[46]. In the GSM segment, the Government should introduce competition through the enactment of a second GSM licence, in compliance with WTO obligation, through an open tender procedure.
  - GMPCS services should be licensed through a *ad hoc* class licenses, that would enable providers of these services to be able to commercially operate in Tunisia upon simple compliance to the general terms indicated in the license.
  - VSAT operators should be licensed, through a competitive bid, according to a specific licence issued by the Ministry of Communications.
  - The exclusive rights of Tunisie Telecom concerning leased lines should be removed. In this way, private operators and corporations should be allowed to build, operate and lease alternative infrastructure, for their own use and for resale of services.
  - The Ministry of Communications should also prepare a policy paper, that states the position of Tunisia vis-à-vis liberalization of local, long distance and international services.

- *Complete liberalization of Internet services and private networks:*

  The Government might want to consider further steps towards the liberalization of Internet services and private networks. As concerns Internet, the limitation to two service providers should be immediately removed. The provision of Internet services should be allowed under a simple authorization procedure, and the Ministry of Communications would still retain the power to regulate the sector through ad hoc regulatory decisions that would be binding for all ISPs. Market segmentation should be eliminated as well, and all providers should be allowed to target all potential clients. The option of subsidies to particular users (such as schools and universities), if introduced at all, should be transparent and provided through general taxation.

- *Increase the autonomy of Tunisie Telecom*:

  The Government should increase the autonomy of Tunisie Telecom, in terms of choices of prices and services, corporate governance and network development. Tunisie Telecom should be transformed into a private law company, before its future privatization. Corporate accounts based on modern accounting standards and external audit from an internationally qualified chartered accountant firm, are short term needs. The two strategic options faced by the Government at this point, are: a) to restructure Tunisie Telecom, increase its drive towards commercial operations and then privatize it;

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[46] See Rossotto, Kerf, Rohlfs "*Competition in Mobile Telecommunications*", Viewpoint Note N. 184, 1999.

b) to privatize Tunisie Telecom without delay, and let the private investor improve existing operations. There are several reasons why the second option is more appealing:

- Tunisie Telecom does not need substantial investment before privatization; nevertheless, a drive towards commercial operations is required, and would be best achieved through private participation as opposed to GoT ownership;
- Tunisie Telecom's financial and commercial viability is not endangered. Therefore, the corporate valuation of the enterprise will be substantial, even without any restructuring.
- The delay in privatization might negatively affect the emergence of a competitive environment: delays in establishment of commercial operations in Tunisie Telecom would be a substantial drawback for new competitors, compelled to use the network of Tunisie Telecom (e.g. for interconnection to PSTN and data network and so on).

- *Lower Import Duties on Telecommunications Equipment:*

  GoT might consider lowering the import duties on telecommunications equipment, in order to reduce the cost of service provision and facilitate the penetration of services.

- *Promote deregulation and establish a proper regulatory framework for competition:*

  MoC retains excessive responsibilities in sector management. In particular, prices and services conditions should be regulated only in absence of competitive service providers (class licenses and simple authorizations should be introduced). Overall deregulation should be coupled with the establishment of a proper regulatory framework for competition, involving, *inter alia*, the creation of an interconnection regime and a dispute settlement mechanism, the establishment of licensing principles and procedures and the elaboration of spectrum management criteria. In this respect, the separation between MoC, in charge of policy, and sector operators, should be clear. GoT has the option of establishing a separate regulatory authority, independent from the Ministry and from sector operators, or maintaining the regulatory functions within the Ministry. In either case, separation between sector policy and regulation and sector operations, is necessary[47].

[47] The regulatory authority option was chosen by all EU countries and successfully implemented also in countries of the region (e.g. Morocco).

Annex 7

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Tunisia Transport Sector
Ports and Airports: Two key interfaces for trade

A. PORTS

1. Policy framework

A new legal framework was recently introduced[48]. The law promulgating the *Code des Ports Maritimes de Commerce* (CPCM) contains a number of interesting innovations. It introduces the notion of port authority which, by delegation from the Government, receives powers to manage and safeguard the public domain delimitated by decree, regulate activities taking place therein and exert police powers within its jurisdiction. The law also defines conditions under which the public domain can be occupied and includes provisions that would allow port concessions[49]. The seeds of participatory management are planted with provisions creating a *Conseil National Portuaire* (article 95) and a *Comité de la Communauté Portuaire* (article 97). This framework is conducive to implementation of a "landlord port" system by which the port authority let third parties handle commercial services and carry out port operations. Moreover, there is nothing in the law that would preclude having several port authorities or reserve that status to a public enterprise. Pilotage is compulsory but towage made optional. These services can be provided by the port authority but not necessarily. In fact, the Government stated intent is to privatize towage within a few years.

The *Office de la Marine Marchande et des Ports* (OMMP) was created by Decree No 98-11385 on June 31, 1998 to merge the former Directorate of Shipping at the Ministry of Transport (MT) with the *Office des Ports Nationaux Tunisiens* then in charge of port operation, management and development. Overseen by the MT, OMMP "owns" and develops the ports entrusted to it by decree. It also operate Gabès under a management contract. Construction of "green-field" ports would normally fall under the purview of the Ministry of Equipment (ME). At present, OMMP has a de facto monopoly on pilotage and towage, owns and operates all quay cranes, and provides storage and custodial services in regional ports[50]. Private-use industrial ports are integrated and managed by the enterprise in charge like Trapsa (the national oil company) for Skhira. Fishing ports are overseen by the ministry of agriculture.

The legal framework provides for competitive provision of port services. However, the monopoly long exerted in Tunis, La Goulette and Radès by the *Société Tunisienne d'Acconage et de Manutention* (STAM), a public enterprise[51], is still holding: no other operator has yet to be authorized to access this market, the largest and most lucrative in Tunisia[52].

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48 The law was presented to the Parliament in 1998; its current status will be verified in June 1999.

49 The concession contract for construction and operation of port infrastructure would cover 30 years and be renewable for an additional 20 years.

50 Only Radès, La Goulette and Tunis-Ville fall outside the OPNT reserved business.

51 CTN owns 60 percent of its capital and another 20 percent is with public enterprises *like Office des Céréales*. The remaining 20 percent is owned by private investors.

52 In tonnage, the three ports represent slightly more than 50 percent of the national total. In value, they generate two-third of the national turnover.

The terms and conditions of employment of dock labor are stated by a decree dated February 17, 1949. The CPCM contains provisions that would abolish it, in order to end restrictive labor practices that limit productivity and increase port transit costs. The decree gives the dock labor force an exclusive right to execute cargo handling in public ports; its firing by employers, even in cases of serious fault, is not allowed: this decision can only be taken by the port director. The number of a professional card holders is fixed periodically; they enjoy a hiring priority. An agreement was signed between the union and the Government on November 16, 1993[53] to, among other things, reset the composition of gangs for specified activities. Overstaffing remains conspicuous and the smallest of teams, that for container handling, includes 8 members when 4 would suffice. In 1997, the Government engaged in negotiations in order to rescind the 1949 decree but the protocol signed on March 11, 1998 contained only minor concessions by the union which, obviously, wields a strong bargaining power. A costly anomaly is that crews must be hired at specialized bulk terminals which need no manning other than the one provided by the particular industrial operator. The crews are thus paid for no work.

Infrastructure and traffic mix

The international trade of Tunisia is essentially sea-borne (over 95 percent) and the availability of good ports is critical. The seven[54] international ports are found on the eastern coast, namely Bizerte, Tunis (la Goulette and Radès), Sousse, Sfax, Gabes and Zarzis. An eighth port at Skhira handle oil exports.

In 1996, port traffic[55] totaled 18 million tons (mt) of which 9.7 mt for imports and 1.8 mt for domestic coastal shipping (mostly petroleum products). General cargo which is where ports need to achieve an efficient human and equipment mix, their most challenging task, represented about 3,4 mt, 41 percent of which going through the port of Radès. Of the 1.4 mt handled there, 1.1 mt came as unitized cargo (81 percent) only a fraction of which was handled in one of the six other ports (about 150,000 tons collectively). Radès is therefore the center of "modern traffic": it processed 47,000 trailors and some 81,500 boxes in 1996. The containerization rate of 37 percent was still low by international comparison. About 43 percent of imports originated in Europe and 52 percent of exports were to that same destination. Textile is the most important export item (51 percent in value).

Whereas the roll-on traffic simply crosses the Mediterranean sea, containers are either transported on direct services or transhipped at intermediate ports (e.g. Gibraltar, Giao Tauro, Malta, Cyprus). They are mostly used for shipments on longer distances. This particular shipping pattern has been triggered by the organization of the major shipowners (e.g. Maersk, P&O) under a policy to use large vessels on transcontinental routes. The transport within the hinterland of Tunisian ports is by truck for a simple reason: Radès is not yet connected to the railway network. As for trailors, they are loaded in Roll on-Roll off ships and on each side of the Mediterranean, they are trucked to destination by a local tractor. Few tractor-trailors are left doing door-to-door services and they all are operated by European firms. Many have developed antennas in Tunisia and a few (Logisud and Fagioli) have entered into joint-ventures with Tunisian firms.

The cargo handling profession

Besides STAM, there are six private firms active in cargo handling. STATT, DAMMAK and Couronne operate in more than one port. With six enterprises including STAM, Sfax is the port where competition is the most real, which favors higher productivity and lower costs. Sousse is another good performer with

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[53] In french *Convention collective nationale des ports et des docks.*
[54] The old Tunis port is closing and not included.
[55] Excluding La Skhirra.

three operators. Gabès is the port where the number of cargo handling companies is the highest (8) but markets there are segmented and competition is more apparent than real.

2. Bottlenecks for Private Sector Development

The institutional set up may be misused

First of all, the CPCM may still be on hold at the Parliament and the most positive changes it introduces to facilitate private sector development under concession contracts would have no legal force. Secondly, this law leaves the door open to solutions where the port authority would still be involved in service delivery. That risk is minor under the current Government policy but there are areas where OMMP could find it expedient to stay in charge. Port equipment is a case in point as a long-standing issue that the port agency (OPNT at the time) felt compelled to tackle. Equipment needs were studied port by port and needed investments were estimated at around US$50 million. Ideally, operators should be the one to shoulder the responsibility to select and finance the equipment. In Tunisia, private port operators balk at this notion because they do not find attractive term credit and none has reached the size to take investment risks. One could add a tradition for them to stay in the shadow of a benevolent albeit intrusive Government. In this case, reorganizing cargo handling and the banking sector would be the way to proceed. Getting OMMP involved in financing equipment would be the wrong solution. More generally, OMMP should withdraw from any commercial port activity since, as the port regulator, that would make it prone to conflicts of interest and bring distortions to the port services market. The current involvement of OMMP in storage is particularly unwarranted since it complicates litigation: the cargo handling companies are legally responsible for cargo keeping which leaves the owners of damaged goods uncertain about compensation and who must pay it.

An implicit risk in what precedes is that the change of culture called for by the law, namely moving from central to pluralist decision making, may fail to materialize. Old habits to impose administrative solutions in commercial undertakings transpired in the all too precise definition by OMMP of conditions to be met by cargo handling companies (instead of specifying the means they should own, the port authority should be more concerned about a verifiable outcome: a minimum handling rate for instance) or in the approach to tendering for a container terminal concession that included preparation by OMMP of the detailed engineering (when the international consensus is to leave bidders enough freedom to innovate, based on the proposed preliminary engineering design).

Nothing in the existing institutional set up is more damaging to port performance than the 1949 decree. As well managed and equipped as it could be, no port will ever be able to deliver good services without putting an end to restrictive dock labor practices.

Port infrastructure and equipment constraints

Substantial investments were undertaken over the last ten years and, at present, port infrastructure in general offers ample reserve capacity. At less than 600 tons, the average throughput per meter of general cargo berth is half the international norm. However, there are areas where capacity constraints do exist. Bulk traffic is received at relatively shallow berths which increases the freight bill. Grain traffic is certainly in need of more berthing space in Radès in order to limit demurrage payments. A new berth for petroleum products should also be built in the same area. Another aspect is that the existing port infrastructure must be modernized or rehabilitated. At Bizerte for instance, the whole commercial quay needs reconstruction soon to be implemented with financing provided under the Bank Transport Sector Project.

More importantly, ports should be adapted to meet a fast growing containerized traffic. At present, this traffic is concentrated on Radès which was built as a multi-purpose port with Roll on-Roll off as the technology of choice. This rationale has been weakened by the actual traffic evolution. In the footsteps of "mega"-shipping lines, the Tunisian shipowners (CTN) are stepping up their container carrying capacity. The container traffic is now soaring: it increased by 22 percent in 1997 in Radès. The Roll on-Roll off traffic itself is facing constraints. "Just-in-Time" shipments of textiles are concentrated on a short portion of the week (30 percent on Saturdays) to meet the marketing requirements of European buyers. The port of Radès is nearing congestion at peak traffic time which calls for creating new capacities that would be idle at off peak traffic time. Hence, an overall excess capacity does not imply that nothing should be done to cater to port user needs in specific areas.

There is insufficient lift on-lift off capacity available in Radès which explains why more than 50 percent of this traffic came on Roll on-Roll off ships. The two mobile cranes purchased in 1986 by the port agency proved ill-adapted to container handling needs and are under-utilized. Spreaders are not systematically used by other cranes which result in lower rates and more frequent damages. The port layout is itself a constraint as transfer distances are outstretched.

Furthermore, the available storage space is increasingly constrained. No more than 7 hectares are available for container storage in Radès and, given the existing organization, they could accommodate 80,000 TEU in optimal conditions when the actual 1997 traffic was of 130,000 TEU. The capacity shortage is therefore important in a very critical area of the port business. The lack of space implies more moves, compounds tracking difficulties and raises port costs. There is no dedicated space for empty containers and they are stored outside the port customs zone without much security. More than a few return damaged and must undertake costly repairs.

Cargo handling inefficiencies

For containers, infrastructure shortcomings and the mediocre conditions under which the straddle carriers and forklift trucks are deployed by STAM[56] combine for a mediocre performance. The average handling rate is estimated between 7 and 8 boxes per hour and per gang compared to 12 boxes as generally admitted worldwide for a container terminal unequipped with gantry cranes.

For the Roll on-Roll off traffic, the performance is much more satisfactory with an average of 13 units handled per hour and per gang, against an international norm of 15. The problem here is that too few gangs are employed simultaneously[57]. Although more work is needed to bolster this affirmation, the organization of dock labor generates an artificial scarcity of manpower that negatively impact productivity.

For general cargo in conventional packaging, the following table summarizes the comparison between Tunisian ports and international standards.

[56] The fleet is still too limited which cause STAM to neglect preventive maintenance and incur relatively high downtimes. The wear and tear of straddle carriers is also increased by the roughness of the pavement on which they circulate.

[57] An average of 1.2 gang per shift when 2 would be considered normal.

Table 7.1 - Port productivity for general cargo

Cargo	Tunisia	International norm
Steel products	Bizerte: 210 t /gang/shift Sfax: 395 t/gang/shift	500-600 t/gang/shift
Timber	Bizerte: 280 t/gang/shift Sfax: 245 t/gang/shift	400 t/gang/shift
Bagged cargo	140 t/gang/shift	210 t/gang/shift
Grain in bulk	Sfax: 1600 t/ship/day Sousse: 1400 t/ship/day	2000 t/ship/day

In short, port productivity for conventional cargo should be increased by 30-50 percent to match international norms.

Restrictive labor practices strongly contribute to low handling rates. The shifts are often shorter than their agreed duration. Discipline on the job is loosely enforced.

Slow port transit

Containers reportedly spent 19 days in storage at Radès. Reportedly, 90 percent of boxes are opened and inspected, a most inefficient practice. In contrast, trailors are only staying 1 or 2 days in the port. In the latter case, Just-in-Time constraints are known by all parties which strive to meet all requirements for a seamless transport. Those trades are often controlled by foreigners who bring the required know-how. It shows that things can change with more professionalism by traders and customs awareness of economic stakes.

The customs are often fingered as the main impediment to faster port transit. It is a fact that procedures are complex, multiplying risks of faulty declarations which have to be corrected before the clearance is given. Forty documents are needed for imports. Simplification of the documents is in slow progress ("*liasse unique*"). Since 1984, the customs have resorted to EDI techniques for declarations but the interest of their Sinda system is weakened by the obligation to use paper declarations. They also require hard copies of the manifest, the insurance certificate, the import license and invoices. For containers, two declarations must be filed, one for the box and the other one for its contents. The customs tariff is overly diversified and, again, disputes can more easily arise as to the correct rate. Finally, customs declaration procedures can only be started after the ship's arrival. In efficient ports, the goods are cleared before they arrive which allows containers to move out within two hours of their unloading.

Other than the customs, the less than perfect banking system and restrictions placed on foreign exchange transfers play a part in delaying the time when all the information needed by the customs declaration is available.

3. Challenges to reach international competitiveness

Ports are too important to Tunisia's foreign trade to remain hostage to a relatively narrow group of dock-workers[58]. Furthermore, trades then ports are too important to be sacrificed to the other dimensions of the

[58] There are 800 "professional" card holders nationwide. Less than half are employed in Radès/La Goulette and in Gabès, the two ports where labor restrictive are at their worst.

general Government policy (transfers to achieve a more balanced development between provinces; indirect support to public enterprises like STAM, CTN or Socomena, the shipyards operator in Bizerte). On the other hands, the ports and the transporters should not be called to depart from standard commercial practices to support certain exports and lose money that they recoup by overcharging other trade flows (e.g. CTN which carries palletized fruits at a loss; theses pallets are ill suited to efficient handling and excess costs are also incurred by STAM and by OMMP). It is widely admitted that the port tariff is expensive by international standards when due account is taken of the low productivity of port operations.

The transport chain for citrus exports was studied in 1995 by the Bank[59] which concluded that excess transport costs were incurred in the order of 22 percent. A multi-product sample of imports and exports estimated the average excess logistics cost of 1.2 percent of the trade value, or 17 percent of total transport costs. These costs are mostly rooted in port and shipping inefficiencies. A more recent Bank financed study provides more direct insights on the magnitude of cargo handling excess-costs[60]. It shows that labor input could be cut in half without overstaffed gangs. It further demonstrates that by raising productivity of port operations by 25-50 percent for containers, 15-30 percent for Roll on-Roll off ships and 30-50 percent for conventional ships, the labor input required would be further reduced by 13 to 20 percent. Overall, labor costs could be lowered by some US$4 million from the current US$7.5 million borne by the employers. The excess costs represent 15 percent of their combined turnovers. This is significant, still a fraction of total port excess costs which include the time lost by ships, by the cargo plus the additional port and equipment over-capacity that low productivity imposes.

More competition is critically needed. Not only is STAM a monopolist in the most active port complex, but it also has captive traffic in other ports brought by its own shareholders, STAM and *Office des Céréales*. Much telling is the cargo handling tariff charged in Tunis and La Goulette, 30-50 percent higher than in other ports where some measure of competition is possible.

Trade facilitation must be vigorously pursued. Tunisia cannot sustain the cumbersome procedures in use that result in lengthy and costly port transit. Although not all of it is attributable to procedural failures, the amount of revenue collected by STAM at Rades and La Goulette for extended storage and associated services amounted to some US$4 million or 25 percent of cargo handling charges collected!

Finally, the port tariff must reflect costs and, as such, create incentives to productivity. Because conditions are not permanent, there should be minimum freedom to adjust the port tariff (OMMP's but also those of the other port enterprises) as needed. The system by which the Government decides on tariff is no more adapted. The port pricing freedom should however be limited by some countervailing powers (e.g. users) and independent regulation mechanisms should be set up to that effect.

4. Proposed solutions

Straightening the legal framework.

The landlord port model should be the reference and provisions in the law permitting the port authority to be directly involved in service delivery must be repealed since it creates uncertainties as to how long the ongoing reform will last and contains the seeds of conflicts of interest. On both counts, private sector development is constrained.

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[59] IBRD. Policy Research Working Paper No.1598: "Logistical constraints on international trade in the Maghreb". May 1996.

[60] CATRAM/PAM/Somete. *Etude sur l'organisation des opérations de manutention dans les ports maritimes de commerce tunisiens*. October 1998

Divestiture by OMMP of its commercial functions

Towage and storage are the main areas for action. But mooring and pilotage could be added. These services would be provided under a term contract awarded through competitive bidding.

Strengthening of OMMP's regulatory capacities

State of the art information management systems must be introduced to upgrade technical, economic and legal functions. The staff manning those systems must be trained accordingly. The acceptance of more competition in port operations in common user areas also implies redrafting the port regulations and developing sufficient capabilities to enforce them.

Repealing of the 1947 decree.

In order to secure its backing by the port and docks union, a comprehensive social plan must be launched including severance payments to redundant dock-workers, training of the active ones plus the introduction of salary schemes with productivity incentives.

Developing container facilities

As planned, a container terminal must be built to meet the needs of the growing container traffic for high quality service. This will be implemented under a "BOT" scheme at Radès. Enough freedom should be left to bidders to propose innovative variants that could lower construction and/or operating costs. Berth No.6 and its restructured back up area should be added to the new berth to give the new terminal enough space for efficient operations. The terminal should also be provided with good rail and road connections.

Rehabilitating and maintaining port infrastructure

OMMP must carry on its a program designed to rehabilitate and improve the breakwaters and berths that are at risk of collapsing, and ensure regular maintenance of common use or private use land-side facilities as per its stated obligations under leases, contracts and licenses to operate private or public port equipment (e.g. the circulation lanes and stacking areas at Radès should be resurfaced).

Reorganizing cargo handling.

It has two dimensions. The first is to determine, port by port, the optimal way to operate and draw conclusions as to how many operators could be let in. Competition is to be sought but without sacrificing economies of scope or of scale. Some ports are small and would not sustain more than two competitors in a system where berths and the quay apron at least would be for common use. Larger ports could lend themselves more easily to *affermage* contracts or, alternatively, to competition on a larger scale with space leased for private use in back up areas. Once options are chosen, the STAM reorganization plan should be finalized and implemented, including cession of a majority of its capital to private investors. The new organization should risks of private cartels or monopolies. Too much vertical or horizontal integration should be avoided. The privatization proceeds could help finance the Dock-workers social plan.

Streamlining customs procedures

EDI systems should be developed and used to allow for online customs declaration and clearance. Simplification of documents ("*liasse unique*") and standardization of procedures will minimize the

administrative costs currently borne by traders[61]. Clearance of cargo before port landing, the introduction of risk management techniques to reduce to 10 percent or less[62] the proportion of cargo subject to inspection, subjecting containers to just one declaration for its contents, around-the-clock working schedules, deferring clearance of trusted traders' containers to their delivery against provision of bank guarantees are all desirable changes.

B. AIR TRANSPORT

1. Policy framework

The institutional framework for passenger international air transport is based on bilateral agreements which establish traffic rights on stated routes. Beyond this, Tunisia adheres to the international conventions on air transport and cooperates with the specialized UN agencies (ICAO).

For charters, market entry is also controlled by Government which will ask for reciprocity when allowing a foreign charter to start a service to Tunisia, this to protect the national carriers' market share. However, it is clear that enough pragmatism and flexibility have been shown by local authorities: few would dispute that tourist packages from Europe to Tunisia are among the most attractive, an indication that the expansion of tourism has not been undercut by predatory pricing arrangements dictated by charter airlines.

Infrastructure and traffic mix

The Tunisian airport infrastructure is comprised of six international airports: Tunis-Carthage, Monastir, Djerba, Sfax, Tozeur and Tabarka. Construction of a new secondary airport has started in Mahdia near Sousse with a stated objective of revitalizing the region. One may question the economic justification of building an airport when Monastir is only 50 km away and Sfax less than 100 km away. More details would be required before reaching a final conclusion on an airport which, as was the case for Tabarka, may turn out to be in low demand for a long time.

The regular traffic is heavily concentrated on Tunis (around 85 percent of total) and the same is true of total air freight (above 90 percent). A major extension of this latter airport is nearing completion at a cost of around US$50 million, designed to raise its yearly capacity to 4.5 million passengers (a 50 percent increase). Monastir and Djerba airports which serve the main seaside resorts are the focal points of charter activities (about 85 percent of total); their passenger terminals were increased to a combined capacity of 5 million passengers per year.

Airport management

It is entrusted with the *Office de l'Aviation Civile et des Aéroports* (OACA) which was recently established to merge the former airport agency (OPAT) with the civil aviation administration.

OACA is in charge of regulations both for air traffic and airport activities. It negotiates and manages the bilateral agreement that form the institutional framework of international air transport from and to Tunisia. It controls market access, pricing, licensing of local airlines and handles security matters related to aircraft and to airport uses. Air traffic control is another key function vested with OACA. Lastly, it provides for airport maintenance, rehabilitation and construction. Works by force account are limited to about 20 percent of total maintenance which may be still too high.

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[61] Forwarders employ more staff than needed in a more user friendly environment. Each staff costs an average of US$5,000 per year.

[62] For containers, 5 percent.

User charges are collected to cover airport costs. Air traffic control fees were hiked up in the mid-eighties to bring them closer to regional yardsticks, making OACA a prosperous entity. The risk of abusing its monopolistic position and recycling rents in uneconomic airport development or carrying excess staffing level[63] cannot be overlooked although it appears largely mitigated by preponderance of the charter traffic, much more price sensitive than regular traffic[64]. There is cross-subsidization as landing fees for domestic traffic at Tabarka and Tozeur are reduced by 25 percent without compensation by Government.

Passenger traffic

The passenger traffic is primarily of tourists. Charters account for nearly 60 percent of total international traffic. Regular flights also carry tourists under blocked space agreements with tour operators. Overall, as much as 85 percent of passenger air transport to and from Tunisia may relate to tourism. Within Tunisia, passenger air transport remains a thin market anchored on two main poles, Tunis and Djerba. Other regularly scheduled domestic flights connect Tunis to Tozeur, Sfax and Tabarka, both tourist destinations.

International air freight

Freight transport remains embryonic at less than 30,000 tons per year, compared to some 3.5 million tons of sea-going general cargo (about 0.8 percent). Outbound traffic is slightly higher than the inbound traffic. Spare parts, electric appliances, hatched eggs and one-day old chicken, and pharmaceuticals are among main imports. Airborne traffic has a significant share only in the last two cases, respectively 95 percent and about 20 percent. Seafood products, vegetable, fruits and textiles are the main exports but the penetration rate of air transport is quite minor except for seafood where it is slightly above 10 percent.

Airlines incorporated in Tunisia

Two airlines are incorporated in Tunisia[65]: Tunis air (TA) provides regular and charter flights on international routes with a fleet of 25 jets whereas Tuninter operates on the domestic market plus a few services to nearby foreign airports (Malta, Sicily, Sardaigne). TA has specialized on medium distance flights and entered into alliances with a few European airlines to expand its market base. State owned but well managed, TA has been consistently profitable and successfully floated 20 percent of its capital on the Tunis stock exchange (current capitalization of about Dt250 million). Tuninter is a private company where TA is a minority shareholder (40 percent) along with public banks (9 percent).

Nouvelair (formerly, Air Liberté Tunisie) is another private charter company registered in Tunisia which competes with other foreign carriers[66]. TA remains the most important single player in this business segment.

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[63] About 2,700 staff in 1996 including 470 for air traffic control.

[64] In 1996, OPAT (then the airport agency) collected traffic revenues of some Dt130 million. Air traffic control fees and landing fees combined for 60 percent of total. In each separate case, the average charge was around US$600 per movement. Airport charges per passenger are close to US10 which seems reasonable. Air freight generated Dt2.5 million other than landing fees [check] or around US$170 per ton [assuming OPAT handles exports only; if verified, this would be on the high side].

[65] Another private company, Tunisavia, provides a range of services from "*avion-taxi*" to freight transport. Its level of activity however is rather insignificant.

[66] Nouvelair held 12 percent of the total charter market in 1995 compared to about 35 percent for T-A. Its average revenue per passenger stood at some Dt120 per passenger per flight, or Dt240 per trip originating from Europe. These rates do not stand out as being too high.

2. Bottlenecks for Private Sector Development addressed by ongoing reforms

Airport management

The creation of OACA marks a policy shift also observed in ports: the public agency is pulling back from day-to-day operations and service provision to concentrate on regulatory matters, strategic planning and management of the public domain. A new "*Code de l'Aviation Civile*" is being prepared to pave the way to private participation to airport operations and even construction.

The private sector is indeed more and more involved in commercial airport activities through concessions granted by OACA or other types of contracts. All commercial buildings outside the customs zone are competitively leased to private firms. Parkings in Tunis and in Djerba are operated under a 5-year concession and it will soon be the case for Monastir. OACA has a plan to give the imported freight wharehouse to a *concessionnaire*. Within the customs zone, a joint venture between Tunisians and swiss investors was given the concession of all free-tax shops for 8 years starting July 1998.

Air freight development

Air transport is growing at a fast pace in the world (around 7 percent p.a.) and good services should be available in Tunisia to create new outlets in or outside the traditional trading zone (Europe) for high value cargo. Air transport capacity constraints were definitely experienced by traders out of an institutional framework that did not facilitate access to the air transport market. The Government tried to alleviate some of these constraints by encouraging the creation of specialized companies. In 1998, a Tunisian company was authorized to provide all-cargo services between France and Tunisia, Mediterranean Air Service (MAS). 60 percent of its capital is private and another 10 percent is owned by Air France[67] which takes care of the logistics within France.

Air-traded goods have a higher value/weight ratio than those using land and maritime transport. Using average international benchmarks for air freight of US$10 per kilo, it still keeps the share of the Tunisian air trade in value well below the 3 percent estimated for air transport worldwide. That does not make air cargo negligible and, particularly as a means of promoting its perishable exports, the Tunisian Government has sought ways to strengthen air transport supply so as to make it match better quality standards for international trade.

3. Challenges to reach international competitiveness

The policy framework limits operating freedom

The policy framework for passenger international air transport is pervaded by the notion that such transport and the airports it needs are sovereign activities that must be tightly regulated by the Government. As stated earlier, traffic rights on stated routes are administered within bilateral agreements and are generally limited to the third and fourth freedom. TA holds the national flag privileges on most international routes but, with the unification of the European airspace, the counterpart flag carrier must share its rights with any other European airline. It has intensified competitive pressures, making it more difficult for the administration to secure the actual traffic rights predicated by signed agreements.

Tariffs are proposed by the participating airlines and jointly set by the authorities in charge of managing the bilateral agreements along guidelines fixed by the International Civil Aviation Organization. There too, competitive pressures added to yardstick pricing tend to bring fares down. To date, the tariff paid by

[67] Owners of the 30 percent equity are not specified.

residents has been half that paid by foreign travelers on any given trip. This odd treatment is legitimized by international treaties and often used by countries restricting the convertibility of their currencies. Is it still appropriate for Tunisia? One could argue that potential investors in the global market will look into comparative costs of settling in Tunisia rather than elsewhere, and expensive air transportation may be a deterrent.

For freight, market access is strictly controlled by the Tunisian air administration. Market thinness and previous botched attempts by unscrupulous investors to create all-cargo companies may indeed warrant some caution. Prices in principle are freely determined but they may have been rigged by the few operators active in the market. As for passengers, inbound tariffs are twice as high as outbound ones. Tariffs are expected to fall by 15 percent following the creation of MAS.

Protecting airlines lead to inefficiencies

At 6.1 cent per Seat Kilometer Offered (SKO) in 1994, T-A direct costs compared favorably with many foreign airlines, then matching British Airways and US Air which were the time some 30 percent more costly than the average US airline industry. Air France costs were at least 50 percent higher. There was nothing to suggest that T-A was plagued by inefficiencies[68]. The most apparent anomaly was the staffing level of all ground services, in a ratio of 9 to 1 to embarked crews when the norm is around 4 to 1. Staffing overall had swollen to above 7,000 and labor costs represented some 30 percent of total traffic revenue, compared to about 28 percent for RAM of Morocco, hardly a model.

Since T-A direct costs do not stand out as significantly higher than normal for the industry, the higher regular tariff applicable on main routes of its network can only be explained by lower occupancy rates (that was the case in 1994 and probably less so now) and by some level of duopolistic pricing under the bilateral agreements. In 1994, traffic revenue per Passenger-Kilometer Transported (PKT) was equivalent to around 12 US cent for regular flights which was slightly higher than revenues earned by European airlines (around 11 cents).

With fares paid by foreigners twice as high as those paid by residents, the average revenue earned by T-A implicates that the former are in fact charged heavily compared to international standards. In fairness to T-A, their profits in 1994 were partly coming from handling activities and non operating revenues (interest on their cash balance) meaning that these high fares were in fact commensurate to costs, direct and indirect plus overheads. Among these, one could mention excess labor costs, depreciation schedules about half those of US airlines, and higher prices charged in Tunisia for kerosene can be mentioned, the first item being the only one on which they could control. Furthermore, T-A is not immune to Government pressures to open or maintain regular flights for political motives, which is the case for the service to Nouakchott. If losses are incurred, they have to be cross-subsidized by profitable lines since the Government does not pay compensations.

Specializing air cargo services is desirable

Up until recently, only combination carriers offered cargo services, mostly offering the available hold space of passenger planes[69] as TA which carried about half of the international cargo (only Alitalia and Saudian Airways are reported to send all-cargo planes). This widely used system has the drawback of giving freight a lower priority. A shipper would be uncertain as to the exact date of shipment (a major

[68] International comparisons are difficult to establish. Costs vary for a number of reasons like the composition of the fleet and the network dimension. TA operates on medium range flight (about two-hour long on average) whereas the "majors" mix long range and medium range flights. Planes are used less intensively, cost therefore more per seat-mile offered. Traffic density too is a major factor as it allows to use larger aircrafts that are more cost efficient.

[69] This system offers possibilities to use marginal cost pricing for freight, therefore providing traders with very attractive tariff.

flaw in the "Just-in-Time" principle of modern logistics) or a single shipment could have to be broken with some parts sent later if the plane has no space to carry it in full (passenger planes can rarely load over 2 tons of freight). Another problem is that the national carrier has a limited network and the freight might have to be transshipped in an intermediary airport before reaching destination, at higher cost and with longer if not uncertain delivery schedules. On the other hand, loading cargo in a passenger plane may delay take-off and lower the quality of services to travelers. Charters are not authorized to load cargo.

Ground services must be competitively priced

In addition to its de-facto monopoly for exported freight, TA carries out most of the handling for passenger flights. The other Tunisian companies (Nouvelair, Tuninter) are the only ones doing handling for their own flights. The dominant position recognized to TA is justified both by an established practice of reciprocity agreements (for instance, Air France does the handing for TA in French airports) and the underlying logic which is to spread handling costs over a larger market and earn economies of scale.

The fact of the matter is that monopolistic handling is often more expensive than when competition prevails. This is well documented worldwide and statistics show that monopolistic ramp handling at major European airports is about 30 percent more expensive than in London and double the rates applicable in US airports. As other airlines in a comparable situation, TA derives substantial benefits from handling and one would expect rates to fall, should competition for the market be introduced. At present, the handling charge per passenger is around US$7 which would seem to dispel the notion that, at least by international comparison, this charge includes large rents although the lower cost of production factors in Tunisia should normally imply costs then tariffs below that of developed countries. Other than rents however, the current monopolistic system has two drawbacks.

- It contributes to make airports more costly without giving the airport authority its fair share of profits. For instance, TA collects revenues of above Dt40 million but pays OACA a token fee of less than Dt1 million.
- The foreign airlines serviced by TA are competitors and can be exposed to pressures to "cooperate" through discriminatory treatment that would lower the service standards, causing passengers to look for another airlines next time since speedy transit is what counts for them, irrespective of where the responsibility for bad service really lies. To that extent, the current Tunisian practice is potentially unhealthy for competition.

Handling of air cargo is carried out by OACA (for imports) and by TA (for exports). The service is uneven and not well adapted to cargo needs (frozen cargo in particular). Modernization must proceed for Tunisian airports to match the standards of services prevalent at European airports.

Trade facilitation at airports must be promoted

Finally, there is still limited EDI capabilities and importers are not promptly notified of the arrival of their imports, increasing the time spent by goods at airports and further eroding the benefits of the air transport mode. Clearly, air transport can only be justified if it is significantly faster than sea transport. Since sea transport, at least potentially, is of short duration because of relatively short distances, it makes all the more compelling for air transport to move as swiftly as possible from origin to destination.

Proposed solutions

For air transport services, passenger and freight, more freedom should be left to airlines to determine their operations and networks. No administration can perceive business opportunities as well as operators themselves. Therefore, any attempt by Government to seek market equilibrium will reduce the innovation pace and encourage rent-seeking strategies by airlines.

The seven measures proposed hereafter are designed to further improve air transport in terms of quality, market coverage and costs.

- **Liberalize passenger air transport**. Tunisia would derive benefits from lower air fares that will help maintain the competitive edge of its tourism and bring Tunisia closer to the global business community. One should aim at no frequency and capacity control on given routes. As shown in the US and elsewhere, deregulation diversifies supply for higher customer satisfaction. On its most active routes, Tunisia should seek "Point-to-Point" Open Sky agreements. That would include extensive fifth freedom rights that would allow T-A to carry passengers between two European countries on its way from or to Tunisia.
- **Envisage an open sky policy for cargo in underutilized airports**. Tabarka is in that situation as well as Tozeur. Foreign cargo operators could be invited to use one of these airports without route and frequency restrictions. These airports could develop transshipment functions to neighboring countries as well as "air trucking" services to Tunisia.
- **Relax licensing constraints for air cargo**. Current restrictions include a majority ownership by nationals, mostly national crews and the obligation past five years to own the aircrafts used. Also, the space available on charters cannot be used to load cargo. If safety standards should strictly be enforced by the administration, other aspects related to the organization and financing of a company should be left to its sole discretion[70]. Wet leasing by which a foreign plane can be hired with its own crew should also be allowed since it fits well the seasonal pattern of Tunisian exports.
- **Expand the scope of airport concessions**. OACA should hand over the remaining parking to private operators. Handling may continue being carried out by a single firm but that should be through competitive bidding with a selection based on the proposed concession fee. The same should also apply to catering, currently provided by T-A at Tunis and by CTKD at Djerba and Monastir. Air cargo facilities and services should also be run by private operators under concession contracts as a way to speed up modernization of storage and mechanized handling.
- **Reduce local airlines' artificial costs**. It applies to the retained tax on debt servicing to foreign banks and the price of jet fuel which is higher in Tunisia than abroad. Furthermore, the short depreciation schedule allowed in Tunisia (10 years) should be extended to better spread fixed costs.
- **Privatize T-A.** T-A has demonstrated its ability to tailor market niches where it can thrive and face up to tough competition. No argument can be made for infant-industry protectionism. T-A must pursue its strategy of alliances with major carriers abroad since its own network is limited to medium haul and would otherwise bar it from developing a global marketing strategy[71]. Given the ongoing privatization of the air industry worldwide, keeping T-A public might restrict its ability to strike deals with private partners. Moreover, the potential for dynamic competition between Tunisian airlines must be let free. The charter and regular markets are more interpenetrated today. In a system where the regulator (the civil aviation administration) takes its cues from its state company, one could

[70] That does not mean ignorance by the administration of the business plan and financial projections since it is public interest to minimize the risk of service disruption that follows bankruptcy.

[71] For instance, T-A has contracted an alliance with KLM. There also close ties maintained with Air France (code sharing, etc..).

always worry that other local airlines would not compete on a level-playing field or that the accountability of the state company will be reduced. In fact, ensuring fair competition should be an essential task of the air transport regulator. Other than minority cross-participation to solidify a privileged partnership, selling a majority block of stocks on the public stock exchange together with distributing shares to personnel in exchange of a plan for wage moderation[72] is desirable.

- **Modernize customs for air freight.**As noted, freight needs to move quickly through customs. Trade facilitation is an even higher priority in this area. Customs should authorize electronic data exchange (EDI) instead of relying on paper air waybills and documents. They should apply risk management techniques to effective controls and avoid duplicating customs procedures for trade with countries where close inter-customs cooperation exists.

[72] Pilots are paid salaries comparable to their European counterparts. The cost of living in Tunisia would warrant lower salaries at purchase parity status. Salary concessions could then be sought to cut costs and make T-A more competitive.

Annex 8

REPUBLIC OF TUNISIA

PRIVATE SECTOR ASSESSMENT UPDATE

Tunisia Power Sector

1. Introduction and Background

The production, transmission and distribution of electricity as well as most of the transmission and the distribution of gas in Tunisia are under the responsibility of a single, centralized public utility, the *"Société Tunisienne de l'Electricité et du Gaz"* (STEG). STEG has a strong financial performance and usually provides its services in a reliable manner. During peak demand in summer, however, occasional fluctuations in tension and rare power cuts occur. Electricity tariffs are low to average compared to international benchmarks, which is partly explained by a cross-subsidy burdening gas consumers and favoring electricity consumers.

Other institutions in the power sector are the international company managing the Trans-Mediterranean Gas (TMG) pipeline from Algeria through Tunisia to Italy, the international private companies managing the country's two gas fields at Miskra and El Borma, an international consortium that is about to built the first private power plant of the country; and a public agency responsible for solar (photovoltaic) electricity generation in isolated rural areas.

Besides the extraction of oil and gas, private sector participation in the power sector has been limited to one large gas-fired power plant built under a BOO approach that is close to being concluded after lengthy negotiations. In the future, the government envisages according to the IXth development plan to phase out the current cross-subsidy from gas to electricity, and to eventually separate the gas and electricity activities under two utilities. There are no imminent plans to privatize STEG or its eventual successors.

A further break-up of the vertically integrated gas and electricity utilities-to-be into separate production, transmission, and distribution companies that would be privatized and would compete against each other in a market setting – following the example of current reforms of the power sector in the US and in the EU – does not seem to be an option for the near future. Among the reasons why competition in electricity generation is not recommended at this stage are the relatively small size of the power market in Tunisia, the fact that electricity transmission is linked with neighboring countries (Algeria, Libya) only to a limited extent (unlike in the case of small countries in the EU), and that Algeria and Libya are unlikely to contemplate any far-fledged liberalization of their own power sectors in the near future. However, in the long term, Tunisia plans to integrate its electricity network with Europe through an undersea transmission line to Italy, thus making the Tunisian electricity sector de facto a part of the European electricity market that will very likely be strongly competitive by then. In order to be well prepared for competition with Europe in the power sector, the vertical disintegration of the power sector may be considered at that stage, in order to provide strong incentives for higher efficiency and for the rapid introduction of new technologies in electricity generation. As far as electricity distribution is concerned, the establishment of separate private or mixed regional distribution companies with clearly defined performance targets (such as a reduction of distribution-related power outages and power losses) could go ahead irrespective of the small size of the Tunisian electricity market and its relatively low degree of integration with the networks of neighboring countries. Electricity transmission is likely to remain in the hand of a single company.

2. Constraints to Private Sector Development

Access. All private enterprises surveyed had access to the electricity grid. This reflects the remarkably high coverage of the Tunisian electricity grid: In 1997 92 percent of all households had access to electricity, split between 98 percent in urban and peri-urban areas and 83 percent in rural areas (including photovoltaic systems not connected to the grid).
The clients of STEG can choose between supply at low, medium or high tension. Low-tension supply is most suitable for residential customers as well as for some commercial companies and industrial enterprises with limited energy needs. It is provided at a uniform tariff and accounts for 45 percent of electricity consumption in Tunisia. Medium-tension supply, to which close to 10,000 clients of STEG subscribe and which is suitable for more energy-intensive industrial companies, is offered at a three-tiered tariff with relatively low tariffs for the night and for most parts of the day, but at high tariffs during peak demand in the evening. It accounts for 42 percent of electricity consumption. High-tension supply is subscribed to by only 12 clients in the whole country, but accounts for 13 percent of national electricity consumption. The tariffs follow the same three-tiered structure as for medium tension, but are slightly lower.

A small number of large industrial clients subscribe to high or medium pressure gas. These clients are mainly engaged in the manufacturing of construction material, in particular cement.

Quality. Among the private enterprises surveyed all over Tunisia, only 6 percent (16 out of 246) stated that electricity supply was a severe constraint for their development. 14 percent (34 out of 246) more companies said that electricity was an important constraint for them. Only 18 out of the 48 companies citing severe or important constraints (7 percent of the total of 246) complained about the quality of electricity supply. Among these is a company managing cooling houses that may have experienced losses of stocks due to power cuts; four hotels that are concerned about loosing clients if they are left without electricity even for short periods; two computer sales companies that may be concerned about the impact of fluctuations in electric tension and of micro-cuts on the hardware it sells; three companies that are supplying electrical equipment or provide electrical engineering consultant services; and three agricultural companies that may suffer from power cuts which generally tend to be more frequent in rural areas than in urban areas.

Statistics on the number and duration of cuts in electricity supply in different areas of the country were not available. However, a surprisingly high number of companies surveyed (107 out of 220, or almost 49 percent) stated that they had a generator. This share was higher among large enterprises (60 percent) than among medium (50 percent) or small enterprises (27 percent). The share of companies having a generator was higher in the industrial sector (56 percent) than in the commercial sector (52 percent) and in the service sector (33 percent). One possibility for the high share of companies owning a generator despite the relatively high level of satisfaction with electricity supplies is that interruptions in supply may have occurred more frequently in the past and companies have kept the generators which they bought at that time. Some large industrial companies which have already bought a generator may find it less expensive to continue to use the generator (while neglecting the sunk costs of investing in the generator) than to buy electricity from the grid. Finally, a few enterprises are located in rural areas where connection to the network may be more expensive than using a generator.

Price. Thirty six out of the 48 companies that perceived electricity as a serious or an important constraint to their development complained about what they perceived as high prices for electricity. Surprisingly, many of these companies are small industrial enterprises or service enterprises, whose electricity bill is not likely to constitute a high share of their total costs due to the nature of their activities. On the other hand, most companies who are likely to have high electricity bills as a share of their total costs, such as ceramics and textile companies, did not cite high electricity prices as a problem.

The level of electricity tariffs thus does not seem to be a major concern for most private sector companies. International comparisons support this result, showing that electricity tariffs in Tunisia are rather towards the middle or the lower end of the tariffs encountered around the world. In particular, industrial electricity tariffs in Tunisia are lower than in most other countries in the Mediterranean basin, such as in Portugal, Spain, Italy, Turkey, Lebanon, and Morocco. However, electricity tariffs are higher than in East European countries such as Poland, the Czech Republic, and Hungary, countries that compete with Tunisia in attracting foreign direct investment. They are also higher than in France and in the USA.

Table 8.1: Industrial Electricity Tariffs in 1997 in US$/kwH

Country	
Japan	0.146
Morocco	0.129
Switzerland	0.102
Portugal	0.098
Italy	0.094
Lebanon	0.088
Austria	0.081
Colombia	0.080
Argentina	0.079
Turkey	0.077
Bolivia	0.077
Uruguay	0.077
Germany	0.072
Chile	0.070
Taiwan	0.069
United Kingdom	0.065
Ecuador	0.065
Denmark	0.064
Spain	0.064
Ireland	0.063
(South) Korea	0.063
Netherlands	0.063
Tunisia	**0.062**
Thailand	0.061
Australia	0.056
Belgium	0.055
Hungary	0.054
Greece	0.053
Czech Republic	0.052
Finland	0.052
Peru	0.052
Slovak Republic (Slovakia)	0.052
France	0.049
Mexico	0.048
United States	0.044
New Zealand	0.043
Poland	0.036
Sweden	0.034
Algeria	0.030

Source: *Energy Prices & Taxes - Quarterly Statistics (Fourth Quarter 1998)*, Part II, Section D, Table 19 (OECD Countries) and Part III, Section B, Table 18 (Non-OECD Countries), Paris: International Energy Agency, 1999. For Algeria, Lebanon and Morocco: World Bank Internal Database from MNSID at: http://mna.worldbank.org/html/id/etrmna.htm.

However, it has to be borne in mind that electricity tariffs in Tunisia would be higher if the cross-subsidy from gas would be phased out (see below). A previous World Bank study estimated that electricity tariffs are about 20 percent below long run marginal costs.

Table 8.2: Electricity tariffs and Long-Run Marginal Costs (LRMC)

	1997 TD/kWh	1997 US Cents/kWh	LRMC TD/kWh	LRMC US Cents/kWh
Low Voltage	0.078	7.6	0.097	9.5
Medium Voltage	0.059	5.7	0.071	6.9
High Voltage	0.043	4.2	0.048	4.7
Average	0.064	6.2	0.078	7.6

Source: ICR: Gas Infrastructure Development Project. Tunisia

Average gas tariffs were 135 TD/ton of oil equivalent (toe) in 1997. High-pressure gas tariffs, which apply to large industrial customers, were 124 TD/toe. The survey did not ask specifically if companies were connected to the gas grid, so no data on the degree of satisfaction of industrial gas consumers were collected. However, two public cement factories which use gas have recently been sold at a surprisingly high price, bearing witness of their high competitiveness despite relatively high gas prices.

3. Constraints to Improve the Performance of the Power Sector

Background. STEG has the legal status of an EPIC and is supervised by the Ministry of Industry. Most power plants in Tunisia are gas-fired. The contribution of hydro-power is low (an average of 8 percent of production in 1994-97). The Bank has supported STEG's investments in the gas sector through three loans approved in 1971, 1980, 1991, as well as its investments in the electricity sector through four loans, the last three of which were approved in 1976, 1981, and 1984.

The gas consumed in Tunisia comes from two main sources: (a) from the Miskar off-shore gas field that was developed and now is operated by a private undertaking (British Gas) (64 percent in 1997); and (b) from Algeria through connections from the Trans-Mediterranean Gas (TMG) Pipeline (32 percent in 1997); and (c) from the El Borma oil and gas field, which is almost depleted by now (6 percent in 1997).

64 percent of the gas purchased by STEG is used in its own power plants and 36 percent is sold to industrial, commercial and residential customers. About 80 percent of STEG's gross revenues are from electricity sales and 20 percent from gas sales to external customers.

Financial Analysis and Cross-Subsidies. Overall, gas and electricity sales cover the financial costs of the utility, including capital costs. However, there is a cross-subsidy from residential, commercial and industrial gas users to electricity users. It is claimed that the cross-subsidy benefits those electricity customers who consume only a limited amount of electricity (below 50 kwh/month) and who pay a "social tariff". However, there are indications that the magnitude of the cross-subsidy is actually larger than what is needed to finance the "social tariff".

Table 8.3: Sources and Employment of Funds of STEG

	1997	
	TD m	**Share of Sources**
Internal Resources (net of interest payments)	144	46%
Debt (net of principal repayments on debt)	105	34%
Subsidies	62	20%
Total Sources	311	100%
Investment	288	
Cash Surplus/Deficit	23	

Source: Calculation based on STEG, Etats Financiers Exercice 1997, p. 15.

STEG has put a cost accounting system in place that allows to identify the level of cross-subsidies from gas to electricity activities. It shows that STEG's overall net accounting profit of TD 36m in 1997 consists of TD 42m gas profits and a TD 6m loss from electricity sales. A comparison of the rates of return shows that gas activities are vastly more profitable than electricity activities.

Table 8.4: Profitability of STEG's gas and electricity activities in 1997

	Gas	Electricity	Total
Gross benefit before interest, exchange rate loss and taxes (Résultats d'exploitation) in TD m	80.3	10.7	91.0
Total Assets in TD m	188.1	1814.6	2002.7
Correction for Transfer of Financial Assets	+224.8	-224.8	0
Corrected Total Assets in millions of TD	412.9	1589.8	2002.7
Rate of Return	19.4%	0.7%	4.5%

Source: STEG Audit Report for 1997.

Table 4 includes a correction of total assets for historical internal transfers of financial assets from the gas division to the electricity division (cross-subsidies). The cumulated charges of the "compte de liaision" between gas and electricity (TD 224.8m) are an indicator of the amount of these transfers. In order to reach the overall rate of return of STEG in 1997 on corrected assets, the electricity revenues would have had to be TD 61m higher in 1997 and the gas revenues correspondingly lower, equivalent to 14 percent higher gross sales revenues for electricity and 21 percent lower gross gas sales (including internal sales).

It is not entirely clear whether the profits of the gas activities of STEG stem mainly from internal gas sales to power plants or from external sales to industrial, commercial and residential users. The price used by STEG for its internal gas sales (or for the planned sales to the IPP in Radès) is not known, but it is estimated that it is a market price or even slightly below the market price. [73] There thus is a high

[73] The accounts of STEG separated by activities show gas sales from the gas division to the electricity division of TD 188.4 m for 1997. In the same year STEG used 2.3 m tons of oil equivalent (toe) of gas for power generation, out of which an unknown quantity is probably directly purchased by the private companies operating the Tunisian gas fields. The internal price would thus be at least TD 82 per toe (and probably much higher), while. the tariff for high pressure gas charged by STEG to industry was TD 124 per toe in the same year.

probability that the profits shown by STEG for its gas activities are mainly generated by external sales of gas.

In addition, both the gas and electricity activities of STEG may be indirectly subsidized through the purchase of gas. For gas pricing, the price of high-sulfur heavy fuel oil of the same energy content (ton of oil equivalent/toe) is normally used as a benchmark. The gas produced at Miskar is valued at 85 percent of the free-on-board (fob) price of heavy fuel oil. The price of the gas imported from Algeria is linked to a basket of eight crudes. Its level, in general, has been below the cost-insurance-freight (cif) price of high-sulfur fuel oil. Nevertheless, as these contracts have been freely negotiated with the private sector (at Miskar) and with the Algerian gas company, these prices may still reflect the market value for gas sold on a long-term basis.

4. Current Reform Efforts

The IXth development plan (1997-2001) states that gas and electricity tariffs should be brought closer to their real costs, thus eliminating the current cross-subsidy. Ultimately the gas and electricity activities of STEG should be separated and managed by two separate financially viable entities. However, no progress was achieved up to now in this endeavor.

At the same time Tunisia has embarked on its first agreement with an Independent Power Producer (IPP) through the Radès power plant, executed under a Build-Own-Operate (BOO) agreement with an international consortium and adding 25 percent to the national electricity generation capacity. The legal basis for this agreement was established through the Decree No. 96-1125 from June 20, 1996 for concessions in the production of electricity. The Bank helped to build the institutional capacity for this agreement through an IDF Grant from 1995 to 1998. The grant helped to establish a special unit within the Ministry of Industry and it paid the consultants who prepared the bidding documents and assisted in the tendering process as well as in negotiations. The IPP was retained through a transparent, open and competitive bidding process. The lowest responsive proposal was submitted by Community Energy Alternatives (USA), Marubeni (Japan) and Sithe (USA). However, the negotiation of the contracts took longer than expected and although the main agreements (such as the Power Purchase Agreement) have been signed, financial closure has not yet been reached in June 1999 after more than 2 ½ years of negotiations. These negotiations were delayed when the financiers were brought in and requested additional guarantees compared to what the sponsoring consortium had initially negotiated with the government and STEG. On the other hand, the government and STEG likewise required additional penalties in the case the private operator failed to fulfill its duties. The advantage of having a power plant built in a timely basis by a private consortium once the negotiations are concluded may in this particular case have been partly offset by the delays in negotiating the necessary contracts. As far as the costs are concerned, it is estimated that the plant will generate power at a bulk cost (excluding fuel) that is about 20 percent lower than if the plant had been built a conventional approach and operated by STEG, due to the use of more advanced technology and more efficient operation. However, no details are available to confirm this estimate, and considering the higher refinancing costs of the private consortium compared to a sovereign bond issue by the Tunisian government (or perhaps even compared to a bond issue by STEG with a government guarantee), the profit margins of the private stakeholders and the costs of undertaking the lengthy negotiations, it is not sure if or to what extent the savings obtained on the technical side actually translate into savings for STEG as the purchaser of the power and ultimately translate into benefits for electricity customers.

The government considers to pursue the BOO/BOT approach once the construction of additional base-load power plants become necessary. Peak-load power plants are considered as being too risky an investment for the private sector, as the demand for peak-load electricity is much less predictable than for base-load electricity.

As far as contracting out is concerned, a number of services are already contracted out. For example, about 80 percent of meter installation works are contracted out to the private sector. However, it is not clear whether other services could be contracted out as well.

5. Next Steps

- Stepwise elimination of the cross-subsidy from gas to electricity
- Conducting a feasibility study identifying the objectives and constraints of the separation of the gas and electricity activities of STEG.
- Evaluation the costs of generating power through a BOT/BOO approach after two years of operation and using the results as a basis for the decision whether new base-load power plants should be built under the BOT/BOO approach or under conventional bidding with operation by STEG.
- Evaluating the experience with the contracting out of services and identifying the possible advantages and disadvantages of contracting out other services.
- Evaluating the benefits of establishing an Energy Service Company (Esco) that would consult large electricity consumers with the objective to lower their electricity costs by undertaking investments in energy efficiency and by optimizing their power supply from various sources, including the use of the co-generation capacity by private companies owning large generators with some spare capacity.
- Considering the vertical disintegration of the electricity and gas utilities-to-be, in order to prepare the Tunisian power market for the integration with the European power grid under a market setting, as well as for a deeper integration with the grid of neighboring North African countries under evolving institutional arrangements..

Annex 9

REPUBLIC OF TUNISIA

PRIVATE SECTOR ASSESSMENT UPDATE

Access to Industrial and Commercial Land

1. Introduction

There are currently 75 industrial estates in Tunisia which harbor the majority of Tunisian industries. 55 industrial estates have been established by the *Agence Foncière de l'Industrie* (AFI), while the remaining industrial estates have been established by regional councils, municipalities, as well as to a limited extent by the private sector. As the estates established by AFI tend to be much larger than other estates, they account for the lion's share of the developed industrial land available in Tunisia. Land for tourism development is developed by the *Agence Foncière de Tourisme (AFT)*.

Companies planning to set up an industry or a hotel have to apply for a building permit with the municipal authorities. In most cases, in the case of industries, the municipal authorities allow industries to set up a plant only within an industrial estate. Only in the case of small industries with no or a minimal environmental impact, construction permits outside industrial estates will be granted.

Industrial land in the coastal zone between Bizerte and Monastir, including the area of Greater Tunis, is scarce. Industrial companies have to wait for up to two years before they receive land in an industrial estate. On the other hand, industrial estates that were established in the western part of the country are only partially occupied.

2. Urban Planning and Land Registration

Urban Planning in Tunisia is based on the *Code de l'Urbanisme et de l'Aménagement du Territoire* of 1994. The objectives of regional planning are threefold: to achieve economic efficiency, environmental sustainability, and equity between different regions. The planning is carried out through a National Master Plan that is established every 10 years, Regional Master Plans (usually at the level of the governorate), and Urban Master Plans at the level of municipalities. The procedure of establishing these plans includes a public presentation of the draft plan and discussions with non-governmental entities such as the UTICA. The National Master Plan and the Regional Master Plan for Greater Tunis are expected to be adopted in 1999 after several years of discussions.

Master Plans can establish land intervention zones in urban areas that give the state, within a period of up to six years, a right of first purchase for any land transfer within the zone, in order to assure a sufficient supply of public amenities as well as of industrial land. The Master Plans can also establish land reserve zones in peri-urban areas, allowing the state to purchase private land for future development. The land reserve zones have, however, been largely ineffective due to the lack of financing. Environmentally sensitive zones can be established with restricted economic activities. Most of these sensitive zones are located in the north-eastern coastal area where the demand for industrial and commercial land is strongest. However, the existence of these zones is said to have had no negative effect on the availability of industrial or commercial land.

The period from identification of a potential site for an industrial estate until the beginning of construction is about three years on average, which is considered as being too long. The length of the procedure is partly due to the need to procure engineering services by using cumbersome procurement methods, and partly to the difficulty of reclassifying agricultural land to industrial land. This latter difficulty arises mainly for two reasons: First, more than 85 percent of the land in Tunisia is not duly registered in the first place, which leads to a rejection of most offers for reclassification because of insufficient documentation. Second, the system of land registration is cumbersome, involving three different and ill-equipped institutions: the Land Tribunal, the *Conservation de la Propriété Foncière* and the *Office de Topographie et de Cartographie* (OTC), each supervised by a different Ministry, namely the Ministry of Justice, the Ministry of the Public Domain and Real Estate, and the Ministry of Environment and Regional Planning. The three agencies are not well coordinated, have no adequate information systems, and most of the registers are out of date. Restricting the role of the Land Tribunal to arbitration of disputes may streamline the land registration procedure somewhat. In addition, the two remaining agencies could be merged under the supervision of a single Ministry or at least could be better coordinated, and they could be equipped with computerized information systems.

3. Development of Industrial Estates

Until 1994 the AFI had a monopoly on the development of industrial estates. AFI says that it is currently able to develop about 120 ha of industrial land per year, while the demand is estimated at 180 ha per year. The remaining demand is expected to be covered by regional councils, municipalities, mixed development companies (such as the Société du Lac de Tunis, a joint venture between private Saudi investors and the Tunisian government) and the private sector. The turnover of AFI of 9 m DT in 1998 suggests however, assuming an average sale price of 30 DT per m2, that only 30 ha per year were actually sold.

AFI either buys industrial land from the public domain at a preferential price of 1 to 5 DT per m2 or buys private land at the market rate of 5 to 20 DT per m2. It then develops the infrastructure in the estate, including roads, electricity, lighting, water and sewerage, pre-treatment plants, communal and green spaces, as well as complete factory buildings on parts of the estate. While the development of industrial estates in the past neglected environmental and social concerns, those estates developed since 1992 take these concerns into account by including wastewater treatment stations and communal areas. The average cost for estates to be developed during the IXth Plan is estimated at 25 to 30 DT per m2. These costs, along with the costs of the acquisition of undeveloped land and a margin to cover the agency's overhead costs, are fully passed on to the land purchasers. The development is financed through the Agency's own resources (about 20 percent), through soft loans (from the *Agence Française de Développement* and the European Investment Bank; about 60 percent), and through the state budget for the estates in the interior of the country as part of the program of regional development (about 20 percent). While AFI incurred losses in the past, its budget has been balanced over the past few years.

The IXth plan (1997-2001) envisages an acceleration of the development of industrial estates and a better match between supply and demand by emphasizing development in the north-eastern coastal area where the excess demand for industrial land essentially arises. 25 industrial estates with a total area of 700 ha are expected to be built, compared to 15 industrial estates with a total area of 300 ha that were expected to be built during the VIIIth plan (1992-1996). While during the VIIIth plan 7 out of 15 industrial estates were located in the north-eastern coastal area, this number increased to 17 out of 25 during the IXth plan, suggesting that the regional mix of the land supply will more adequately match the demand for industrial land. A number of industrial estates inscribed for the VIIIth plan and whose construction was begun in 1994 and 1995 were completed during the IXth plan, suggesting that there have been delays. According to AFI, the construction time for an industrial estate is between 8 and 24 months. It is not clear how many industrial estates were completed during the VIIIth plan. Given the ambitious increase in the area to be

developed under the IXth plan and the fact that not all the objectives of the VIIIth plan were achieved, it is not sure whether the objectives of the IXth plan can be reached and making it unlikely that the bottleneck in the availability of industrial land is quickly resolved.

4. Management of Industrial Estates

Before 1994 industrial estates were poorly managed, which resulted in many cases in the deterioration of the infrastructure, making the costly rehabilitation of more than 14 industrial estates necessary. Therefore, the concept of Maintenance and Management Groups (*Groupements de Maintenance et de Gestion* GMG) for Industrial Estates was created by law No. 94-116 of 1994. These non-profit groups maintain and rehabilitate the common infrastructure within the industrial estates. Their activities are financed by contributions from the occupants of the estate. They are created by ministerial decree upon request by professional organizations or the occupants and owners of the industrial estate. The GMGs report about their activities to the governor of the region. If the GMGs do not fulfill their tasks, the Minister of Industry can dissolve a GMG. Apparently the creation of GMGs has improved the maintenance of industrial estates, although the quality of services is said to vary considerably between individual estates. However, only 48 industrial estates have a GMG, while the remaining 27 estates – some of which have a low occupancy rate and are small - are still managed by AFI, regional councils or municipalities.

5. Bottlenecks and Potential for Improvement

In the north-eastern coastal zone of Tunisia, the area of the country that witnesses the most dynamic economic growth, industrial land is still scarce. At least 300 companies wait to be allocated industrial land corresponding to an area of about 90 ha. The waiting time varies between a few months to up to two years, depending on the location and the nature of the company. Foreign companies usually receive preferential treatment and face a shorter waiting period, as they may reconsider their decision to invest in Tunisia if the waiting time becomes unacceptably long.

One reason for the scarcity of industrial land is the slow pace of construction of industrial estates by AFI, which is partly caused by the cumbersome bidding procedures governing the procurement of engineering consulting services needed to design the estates. Another bottleneck for the availability of developed industrial land apparently is the scarcity of undeveloped land classified for industrial use. Municipalities apparently have only insufficient land reserves, and there is no legal obligation to maintain a certain area of land for industrial purposes or for tourism. The procedure to change the classification of land from agricultural to industrial land apparently is cumbersome. Most of the earlier industrial estates were built on land that was not classified as industrial land and that had not been properly acquired by AFI (see the complicated land registration procedures described further above). This made a cumbersome updating of land rights after the completion of the estate necessary.

6. Private Sector Participation in the Development of Industrial Estates

Law No. 94-116 of 1994 opened the development of industrial estates, which was a monopoly of AFI previously, to the private sector. However, private sector response has been slow, and apparently only the construction of a small number of estates of limited size was undertaken since then by the private sector. One reason for the slow private sector response apparently is that - unlike AFI or AFT - the private sector cannot acquire public land and thus has to resort to the purchase of much more expensive private land. As a result, the prices for industrial land in the private estates were much higher than in the estates developed by AFI. In addition, private developers asked the government to assume the costs of infrastructure development outside the industrial estate (roads, connections to the power, water and sewerage network). However, in the case of industrial estates developed by AFI, these costs are usually borne by AFI and passed on to the land purchasers. Finally, private developers often lack access to finance, as the

cumbersome land titling system usually does not allow them to register the land properly in due time, making it thus unavailable as collateral.

Private participation in the development of industrial estates could be facilitated if private developers had the possibility to acquire public land at the same preferential prices that are currently granted to AFI and AFT, or if public land was leased to them under long-term contractual arrangements. Alternatively the playing field between the public agencies and the private sector could be leveled by selling public land at market prices in all cases, while the revenues would be used to finance specific activities that serve the objectives of regional planning, such as acquiring land reserves in peri-urban areas, financing the establishment of industrial estates in remote areas, or the protection of sensitive zones.

Annex 10

REPUBLIC OF TUNISIA

PRIVATE SECTOR ASSESSMENT UPDATE

Water and Sanitation Sector

1. Introduction and Background

The urban water supply and sanitation utilities in Tunisia are centralized and publicly owned. Sector policy and investment planning are centralized at the ministerial level, while investment, operation and maintenance are centralized in national utilities. These utilities have been financially strong and technically efficient by the standards of water and sanitation utilities in developing countries. Private sector participation has been limited to a small number of cases up to now, and the overall Tunisian approach to PPI is also reflected in the water and sanitation sector. The relatively strong performance of the public utilities is brought forward as an argument in favor of keeping water and wastewater services in the public realm, which does not exclude a more forceful approach in the sub-contracting and in the awarding of concessions to the private sector for well-defined services and projects.

Urban Water Supply in Tunisia is the responsibility of the *"Société Nationale d'Exploitation et de Distribution des Eaux"* (SONEDE) under the Ministry of Agriculture, while urban wastewater services are the responsibility of the *"Office National de l'Assainissement"* (ONAS) under the Ministry of Environment and Regional Planning. Bulk water supply is partially under the responsibility of SONEDE, partly under the SECADENORD, a public entity that supplies water both to SONEDE's distribution network and to the regional branches of the Ministry of Agriculture that are responsible for operating irrigation systems. There are no municipally-owned water utilities in Tunisia. Rural Water Supply planning and investment is done by the *Direction Générale du Génie Rural* (DGGR) in the Ministry of Agriculture, while user groups operate and maintain these rural systems.

2. Constraints to Private Sector Development

Access and Quality

Industries rely for their water supply either on their own wells or on piped water supply. Larger industries usually have their own wells. While for most uses and in most parts of the country groundwater quality is acceptable, in some cases pretreatment is needed. For the drilling of new wells a license is necessary. It has not been reported that industries were constrained because they did not receive such a license, but particularly in some parts of Southern Tunisia where groundwater is overexploited, access to water may become a problem in the future for new industries with high water consumption. Small and medium industrial enterprises and service enterprises usually rely on the public water supply. The water supply from this source is generally reliable and of good quality. Supply is seldom interrupted, and if it is the case it is usually due to accidental damages done to the network and not due to poor management or to water scarcity at the source.

The survey among private companies shows that 6 percent of the respondents (15 out of 242 companies) indicate that water is a severe problem for them. However, 11 out of those 15 companies state that their only problem related to water is its price, and one company gives no further details. Out of the 11

companies that complained about the high price of water 8 are in tourism, suggesting that their high water bill may be related to the high water consumption in hotels. Only one company complains both about the price and the quality of water. Two companies voice concern about the quality, the quantity and the price of water. Both are active in agriculture and probably do not rely on the piped water network. The survey thus shows that a large majority of private companies do not perceive water as a significant constraint, although some hotels are concerned about what they perceive as a high price of water (see below for international price comparisons).

On the sanitation side, industrial and commercial wastewater is either discharged into the sewerage system or into open watercourses. In both cases, strict quality standards exist and are rigorously enforced for private sector enterprises, while enforcement for public enterprises tends to be less rigorous. In the case of discharge through the sewerage system, in many cases pre-treatment is necessary to fulfill the standards. In the case of direct discharge, treatment is almost inevitable. The costs of pre-treatment and treatment are often much higher than the charges paid for discharge into the sewerage network. In order to limit the cost impact of the strict discharge standards, the government has established a *Fonds de Dépollution* (FODEP) which provides matching grants for the establishment of industrial wastewater treatment plants.

According to the survey, 10 percent of respondents (25 out of 252) indicate that wastewater is a severe problem. 12 out of the 25 companies complain about the price of sanitation services (9 complain *only* about the price), and 4 other companies do not specify details. 5 companies are concerned about the quality of wastewater, 3 about its quantity, and 4 about both quantity and quality. In the case of one hotel in the Nabeul area, the complaint apparently is about the bad smell of a nearby wastewater treatment plant (see below under PPI). In the other cases no further details are available. However, it is possible that some heavily polluting companies find it difficult to comply with the strict effluent quality standards, and their negative reaction may be due to a dissatisfaction with that legislation rather than to dissatisfaction with the services provided by ONAS. It thus seems that, with a few exceptions, industrial and commercial customers of sanitation services are satisfied with the services that they receive.

Access to water is, however, a crucial problem for agriculture, which is predominantly private in Tunisia. Agriculture contributes 14 percent to GDP and 26 percent to total employment. About one third of value added in agriculture comes from irrigated agriculture which in turn accounts for more than 80 percent of the country's water use. More than 80 percent of that agricultural water use is based on groundwater. In Southern Tunisia irrigated agriculture relies on fossil groundwater, which is not renewable and will thus inevitably be depleted. There are no reliable estimates on how long the groundwater stocks will last. However, the Ministry of Agriculture estimates that the current use of fossil groundwater will not lead to a "significant" decline in the water level or to a deterioration of groundwater quality during the next 30 years. In some areas of the eastern coastal area and in the central part of the country renewable groundwater resources are overexploited, leading to higher pumping costs and to seawater intrusion into aquifers in some places. In the long term, groundwater quality could deteriorate or groundwater stocks could be exhausted, thus not only making the expansion of agriculture in the South, the western coastal area and in the central part of the country impossible, but also eventually curtailing the existing level of agricultural production. In Northern Tunisia irrigated agriculture relies mainly on surface water, whose availability varies substantially between years, thus subjecting at least part of the irrigated area to the risk of drought. Nevertheless, in the North an extension of the irrigated area is still possible to a certain extent.

Price

The current tariffs for piped water supply, which are the same for the whole country, are as follows:

Table 10.1: Water tariffs by SONEDE as of 1/1/1999

Consumption in m3/three months	Tariff in TD/m3
0-20	0.130
20-40	0.200
40-70	0.400
70-150	0.605
More than 150	0.740

Most industries pay the highest tranche of the water tariff, which is TD 0.74/m3 (US$ 0.60/m3). This tariff is rather towards the lower end of the spectrum of domestic OECD water prices, most of which apply to commercial and small industrial users as well.[74]

Tariffs for surface water supplied through the public canal system for irrigated agriculture vary from one governorate to the other, but generally they are much lower than urban tariffs and range from TD 0.02 to 0.1 per m3. The highest tariff for irrigation thus is still lower than the tariff for the lowest bracket of urban water use. The costs of pumping groundwater depend among other factors on the depth of the groundwater table, but generally it is much lower than the cost of piped water supply in the higher brackets of the urban water supply tariff in Tunisia and thus is not expected to constitute a major constraint for the industry and service sector. However, in the case of irrigated agriculture, which uses much larger amounts of water compared to its value added, the cost of pumping groundwater could become a major constraint for the private sector at least in some areas of the country.

3. Constraints to Improving the Performance of Water and Sanitation Services

Urban Water Supply

SONEDE is an "*Entreprise Publique à charactère industriel et commercial* (EPIC*) doté de la personnalité civile et de l'autonomie financière*" under the Ministry of Agriculture. It is responsible for all aspects of urban water supply and of rural water supply in peri-urban areas as well as in rural areas located close to water transmission lines.

SONEDE had a permanent staff of 5,804 and a temporary staff of 1,546 in 1998, and it served 7,17 million people in urban and rural areas. The coverage with piped water in the 257 urban communes in Tunisia, where about two thirds of the population live, was 97 percent in 1998. Unaccounted-for-water in the transmission and in the distribution network was only 21 percent in 1998, a remarkably low figure. The number of staff per 1,000 connections was 5.2 in 1998 (the figure is 4.1 if only permanent staff is considered). The most efficient utilities have a ratio of 3 to 4 staff per 1,000 connections. SONEDE has generated an accounting profit.

[74] According to Water & Wastewater Utilities Indicators (2nd edition), published by the Water and Sanitation unit in the World Bank in May 1996, the average domestic water tariff in selected cities in 14 OECD countries was US$ 0.96/cum in 1991 prices. The price range was from US$ 0.13/cum to US$ 2.12/cum. Another survey that covered specifically industrial water tariffs in 10 countries – including 6 developing countries - showed they varied between US$ 0.08/cum and US$ 2.16/cum (World Bank Technical Paper No. 386: Water Pricing Experiences. An International Perspective, Washington DC, 1997, p.7.).

As other public enterprises, SONEDE has signed two "program contracts" with the government covering the periods of the VIIIth and IXth plan. In the first "program contract" covering the VIIIth plan (1992-1996), strategic objectives (covering the technical side) and operational objectives (covering the financial and the human resources side) were set. More than 40 activities with detailed quantitative indicators have been proposed to achieve these objectives. At the end of the contract period, for some indicators, actual values exceeded the planned values (such as the number of connections). However, the unaccounted-for-water did not decline substantially. Other indicators who are beyond the control of SONEDE weakened as well, as tariffs were not increased as much as planned, and salaries and the arrears of public entities increased more than planned.

For the IXth plan (1997-2001), the main objectives of the program contract between the government and SONEDE have been restated, including an ambitious investment program. The program contract includes detailed quantitative indicators concerning the share of households served, unaccounted for water, number of leaks, share of water metered, energy use per unit of water produced, service quality, human resources (including training, absenteeism, and number of staff), sub-contracting, as well as financial management. The targeted improvement in performance indicators has been rather cautious, and the progress achieved up to now has been mixed. Thus SONEDE was able to reduce UFW in transmission and distribution from 26 percent in 1996 to 21 percent in 1998, which is a remarkable achievement, well in excess of the planned reduction to 24 percent. However, the number of permanent staff per 1,000 connections stagnated at the relatively high level of 4.1, and only a very slight reduction to 3.9 is foreseen until 2001. Given the planned increase in the number of connections, this would actually translate into an increase in the number of permanent staff from 5,772 in 1996 to 6,300 in 2001. About 20 percent of the current staff of SONEDE are guardians, a level which can probably not be justified by the needs of the company, but can be explained by an implicit social obligation imposed by the government on the utility to provide employment. The planned increase in the number of staff does not bode well for the political will to sub-contract a number of tasks that could be provided by the private sector on a competitive basis, but which are provided in-house currently. A study financed by the World bank has attempted to estimate the efficiency gains and the employment impacts of the sub-contracting of a large number of specific services that are now performed by SONEDE.

The targets set for SONEDE in the program contract are complemented by a range of obligations for the government concerning factors that are crucial for the performance of SONEDE, but are beyond its control. These include an annual increase of tariffs, the repayment of arrears by public entities, the inclusion of adequate budgets for the payment of water bills in the budgets of these entities, and the coverage of the costs of additional operations requested by the government either through a tariff increase or through subsidies.

In general, it is difficult to judge the performance of SONEDE, first of all because some important factors affecting its performance are beyond its control, such as tariff increases, salary increases, increases in energy prices, and arrears by public entities. Second, just as other public enterprises, it is subject to a number of implicit objectives and expectations that are difficult to ignore and often counterbalance the achievement of the explicit objectives in the program contract. Among these is the desire not to hurt the poor through tariff increases, especially in election years; the provision of employment, especially for low-income groups; and the promotion of water savings on environmental grounds despite its negative impact on revenues and financial indicators.

SONEDE has asked for water tariffs to be raised at a rate of 10.5 percent per year during the duration of the current program contract. Average planned investments over that period are TD 77 m or 80 percent higher than in 1996. It is expected to finance the incremental investment both through higher debt and through higher revenues. If tariffs are actually increased as suggested, 62 percent of the investments over the five-year period would be self-financed, with the remainder being covered by debt (29 percent) and by

subsidies for rural water supply (9 percent). A major source of debt financing are credits from international donors including the World Bank. If tariffs are not increased at all and the investment volume is maintained as planned, financing from internal resources will decline from 62 percent to 29 percent and – the available debt financing remaining unchanged - the share of subsidies would have to rise accordingly. However, in that scenario it is more likely that investment will be reduced.

Table 10.2: Sources and Employment of Funds of SONEDE

	1996		Average for 1997-2001 without tariff increase		Average for 1997-2001 with tariff increase	
	TD m	Share of Investment	TD m	Share of Investment	TD m	Share of Investment
Internal Resources (net of interest payments)	40	95%	38	49%	62	81%
Debt (net of principal repayment of debt)	-7	-16%	8	11%	8	10%
Subsidies	9	21%	7	9%	7	9%
Total Sources	42		53		77	
Investment	42	100%	77	100%	77	100%
Surplus/Deficit	0		-24	31%	0	

Source: Based on figures in *Contrat Programme SONEDE –ETAT* 1997-2001, February 1998, p. 21.

SONEDE's turnover in 1997 was TD 127m, and its net profit was TD 2.3m. Tariffs were increased substantially between 1994 and 1996, but in the following years only one tariff increase of 5 percent occurred in January 1999. At this time - half way through the current program contract - the cumulative increase in the average tariff should have been more than 28 percent instead of only 5 percent. As a consequence, SONEDE has no other choice but to reduce its investment, making it unlikely that the targeted increase in the share of population served can be reached.

Urban Sanitation

ONAS is an *Entreprise Publique à charactère industriel et commercial (EPIC) doté de la personnalité civile et de l'autonomie financière.* under the Ministry of Environment and Urban Planning with a staff of 4,186 (1998), including a temporary staff of about 900. Its mandate is to protect the water environment, in particular through wastewater collection and treatment. ONAS is in charge of sanitation investment all over the country, but it operates sanitation facilities only in those areas for which is assigned by decree to do so (126 localities, including all cities). Sanitation facilities in other localities, which are usually small, are operated directly by municipalities.

As other public enterprises ONAS has signed program contracts with the Government for the VIIIth and IXth plan. The program contract for the IXth plan (1997-2001) includes technical conditions (covering among others the connection rate, total investment, the volume of wastewater collected and treated, and the number of employees per 1,000 customers), financial conditions (projected sources and applications of funds and projected income statement), organizational conditions (covering among others the introduction of a computerized management information systems and of cost accounting in 2000 as well as granting a concession for a treatment plant, subcontracting a total of eight treatment plants, and subcontracting the sewerage network in six zones) and corporate conditions (essentially the number of staff at various grade levels). In particular, it is envisaged to increase the connection rate in cities already served from 77 percent to 85 percent, to provide services in 33 new cities, to increase annual investment from TD 52m in 1996 to 72m in 2001, to reduce the number of staff from 6.1 to 5.4 per 1,000 connections. The total number of staff would nevertheless increase from 4,081 in 1997 to 4,601 in 2001.

Just as in the case of SONEDE, achieving these results depends on the fulfillment of a number of commitments by the government that have been specified in the program contract, such as an annual increase of sanitation tariffs by 10.5 percent, an annual increase in receipts from the local authorities fund and of compensatory receipts in the order of 6 percent, a progressive payment of arrears by public entities, as well as a substantial increase in subsidies from TD 41m in 1997 to TD 70m in 2001.

Table 10.3: Sources and Employment of Funds of ONAS

	1996		Average for 1997-2001 with tariff increase	
	TD m	Share of Investment	TD m	Share of Investment
Internal Resources (net of interest payments, including third party contributions)	9	16%	9	11%
Debts and Grants (net of principal repayment of debt)	21	36%	18	23%
Government Contribution	28	48%	52	64%
Total Sources	58		79	
Investment	58	100%	79	100%

Source: Calculated based on Financial Conditions as stated in the *Contrat-Programme* between the Government and ONAS 1997-2001, Ministry of Environment and Urban Planning, January 1997.

ONAS is subject to the same implicit objectives and expectations on the part of the government as SONEDE, concerning mainly the creation of employment and the maintaining of "affordable" tariffs. Nevertheless, by 1998 all the performance criteria were met, including the increase in sanitation tariffs.

The sanitation tariff is a two-part tariff comprising a fixed and a volumetric part. The volumetric part is strongly progressive, the first 20 cum being almost free, while the highest block (above 150 cum/month) is charged at DT 0.39/cum. The industrial water tariffs increase according to the degree of pollution. Tariffs for tourism are linear, but higher than any other tariffs (DT 0.76/cum). International price comparisons are not readily available, but indicative experience from OECD countries suggests that the sanitation tariffs in Tunisia are towards the lower end of the spectrum in these countries.

In 1995 revenues covered about 30 percent of Long-Run Average Incremental Costs (LRAIC). The tourism sector and the most polluting industries, however, pay tariffs that cover, respectively, 62 percent and 50 percent of LRAIC.

Rural Water Supply

Rural water supply in Tunisia is the responsibility of SONEDE in the case of agglomerations in rural areas. 30 percent of the rural population is covered by SONEDE with piped water supply. Another 7 percent is covered by SONEDE through piped water supply. In addition, 37 percent of the rural population receives water through systems built by the Direction Générale du Génie Rural (DGGR) under the Ministry of Agriculture, sometimes through piped systems, but mainly through standpipes. The systems built by the DGGR are usually operated by non-profit organizations called Associations d'Intérêt Collectif (AIC). Another 24 percent of the rural population still do not have access to clean water at an

acceptable distance from their home. The coverage in rural areas is thus very high compared to countries at a similar income level. Tunisia aims at 100 percent coverage of rural areas in 2025.

SONEDE receives subsidies for investment in rural areas that amounted to TD 7m in 1996. It charges the same water tariffs for piped supply in rural areas that it charges in urban areas and thus generates a profit from the operation of these rural systems. For standpipes the water tariffs has recently be decreased on social and health grounds to match the lowest bracket of the piped water tariff. Tariffs for piped water supply remained unchanged.

Local communities could be more involved in the design of rural water supply systems than it is the case now. As well, private contractors could be involved to a greater extent in the construction of rural water supply systems in areas where force account is used. In the long term, the private sector could play a role in providing water in rural areas under a minimum-subsidy approach. Private companies would bid for the right to supply water for a certain period at pre-determined tariffs in a certain location, and the contract or lease would be awarded to the bidder requesting the lowest subsidy for the investment. Such contracts or leases could be carried out first on a pilot basis to gauge the response of the private sector to such a new opportunity. As opposed to the AIC, who only operate rural water supply systems, private companies would also provide their own funds plus possibly some bank financing to complement the government subsidy. If the overall government subsidy remains constant, these additional funds could help to extend the coverage of the rural population with water supply. In addition, competition may give rise to innovative and less costly technical solutions in the framework of clearly specified and monitored quality standards. In order to avoid conflicts of interest, regulation of such private water operators should not be through the DGGR alone (also it may act as a technical advisor), but through independent public bodies with their own financial resources who could be supervised by the local government or by a specialized directorate of the Ministry of Agriculture.

Irrigation

The main source of water supply for irrigation is groundwater, which is pumped by individual farmers or associations of farmers. The challenge here is to devise institutional arrangements among farmers in areas where overexploitation occurs to reduce pumping to a sustainable level.

4. Current Reform Efforts

PPI

Urban Water Supply

On the water supply side, the World Bank financed a study on sub-contracting, which is about to be finalized. The study identified 25 tasks that could potentially be privatized, out of which 14 could be privatized without any concerns., including the production of "eau de Javel", cleaning of offices, network maintenance, and leak detection. No services have been contracted out as of yet.

Sanitation

On the sanitation side, two services were contracted out, one related to the maintenance of the sewerage network, and one related to the rehabilitation and operation of three smaller wastewater treatment plants. In addition, a BOT contract for a large wastewater treatment plant is under preparation.

The maintenance of a small part of the Tunis wastewater network was successfully contracted out. The private operator SOMEDEN, a joint venture between the French *company Société des Eaux de Marseille* (SEM) – itself a subsidiary of Vivendi and *Lyonnaise des Eaux* - and the Tunisian Amrouni group, began its work in February 1997 under a five-year contract. After more than two years, clear improvements have been achieved in operating efficiency, in the quality of services, and in labor conditions. The number of staff working on the maintenance of the 145 km of canals was reduced from 35 to 14. This reduction was achieved by introducing new technologies (mechanical instead of manual cleaning) and by better utilizing the existing workforce. Although the salaries paid by the private operator are about 25 percent higher than the salaries paid by ONAS and despite the investment in mechanical equipment, overall costs (excluding, however, the costs of one expatriate manager and costs of other services provided by the French mother companies) are about a third lower than under public management. At the same time the quality of services was improved, as indicated by a reduction of 50 percent in the complaints received by residents in the area (less than 400 annually compared to 800). This was achieved by rigorously following a schedule for routine cleaning of the network, and by preventive cleaning ahead of the winter rains. Previously winter rains caused flood damages, for example to cars, because the inadequately maintained sewerage network was clogged. Also, the intervention time after a complaint is received is now less than four hours compared to up to several weeks before the contracting out. Labor conditions improved as well, as the employees received modern safety equipment and a comprehensive vaccination program. In addition to the increased salaries, some workers benefit from advance salary payments to be repaid without interest and which did not exist previously. Only some staff have previously worked with ONAS, but the majority of the employees were newly hired and trained on the spot by experts from France.

The private operator has to meticulously account for its activities in a manner that is in contrast to the more limited accountability to which the staff of ONAS is subjected. ONAS says that it is very satisfied with the improvements achieved under that contract.

The contracting out of the rehabilitation and operation of three wastewater treatment plants in the Nabeul and Hammamet area is considered by ONAS to be much less successful. The private operator, a Scandinavian company with no previous experience or presence in Tunisia, began its work in February 1999 under a five-year contract. However, it apparently failed to adequately operate and maintain the plants, resulting in numerous complaints from neighboring residents in this tourist area of Tunisia about bad smell from the plants and an unacceptably low quality of the treated effluent. Despite the intervention of ONAS, the operator has been unable to remedy the problem. In addition, the price per cum treated charged by the private operator is only slightly lower than what ONAS had estimated as its own costs for the service. The negative experience in this case may be due to a lack of pre-qualification of bidders. The six companies participating in the bid were evaluated in a single stage in a procedure giving about 70 percent weight to technical criteria and 30 percent weight to financial criteria. However, the winning bidder apparently underestimated the amount of work to be done, and given the relatively small size of the contract (TD 4.3 million) may not find it attractive to make substantial unanticipated investments in the plant.

In addition to the experience with contracting out, it is planned to build a wastewater treatment plant and sanitation network in West Tunis under a BOT scheme. The Bank has agreed to finance a study for the BOT contract. However, selection of the consultants has been slow and has not been finalized. The project is expected to go ahead in 2001, and if it is warranted, the Bank may be involved with a guarantee.

USAID had initially supported all three cases with feasibility studies, in which cost savings were estimated to be in the range of 20 percent.

ONAS is continuously evaluating the experience gained in these pilot projects. It is currently considering to contract out the maintenance of more than 10 percent of the network, beginning with a contract for

about 400 km of network in Northern Tunis, including about 32 pumping stations. In addition, 7 among the existing 55 wastewater treatment plants are being considered for contracting out, with a focus on newer plants to avoid problems with the performance of private contractors who may underestimate the costs of works to be done to rehabilitate older plants, as it happened in the case of the pilot plants. ONAS expects cost savings and quality improvements on all these contracts without reducing overall employment of the utility, as staff could be re-deployed to serve new plants and new parts of the expanding network. Indeed, ONAS' performance contract foresees to increase its number of employees by 650 between 1997 and 2001. It is, however, not clear how this increase can be reconciled with the commitment to contract out substantial parts of the sewerage network and of the treatment plants.

5. Proposed Solutions

SONEDE

Based on a thorough evaluation of the potential efficiency gains, quality improvements and employment impacts, a number of non-core services should be contracted out as soon as possible. In addition, a first BOT project in the water sector should be undertaken without delays. The experience of other utilities – such as STEG and ONAS - in contracting out services and in BOT contracts should be studied, in order to avoid pitfalls and to emulate successes.

ONAS

The planned program of contracting out as well as the BOT for Tunis West should be continued without further delays. In addition, a number of more general recommendations concerning bidding procedures and the legal framework for PPI can be derived from the experience in the sanitation sector. These recommendations are discussed in the main part of the text.

Annex 11

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

The SBIC Program

To help solve the problem of SME access to finance to launch a business, the Congress of the United States created in 1958, The Small Business Investment Company (SBIC) program. SBICs, licensed by the Small Business Administration, are privately organized and privately managed investment firms. With their own capital and with funds borrowed at favorable rates through the Federal Government, SBICs provide venture capital to small independent businesses, both new and already established. Substantially all SBICs are profit-motivated businesses. A major incentive for SBICs to invest in small businesses is the chance to share in the success of the small business if it grows and prospers.

WHO BENEFITS FROM THE SBIC PROGRAM?

Small businesses qualifying for assistance from the SBIC program are able to receive equity capital, long-term loans, and expert management assistance. Venture capitalists participating in the SBIC program can supplement their own private investment capital with funds borrowed at favorable rates through the federal government. Tax revenue generated each year from successful SBIC investments more than covers the cost of the program. The SBIC Program also provides the taxpayer with more job opportunities. SBIC-financed small businesses are proven job creators.

PRINCIPAL ADVANTAGES TO THE SBIC

An SBIC begins with people who have venture capital expertise and capital, and who want to form a venture capital investment company. By law, an SBIC can be organized in any state, as either a corporation or a limited partnership. Most SBICs are owned by relatively small groups of local investors. Many, however, are owned by commercial banks. Some SBICs are corporations with publicly traded stock, and some are subsidiaries of corporations.

PRIVATE CAPITAL REQUIREMENTS

SBA requires a minimum private capital investment of $5 million for an SBIC and SSBIC, and $10 million if they intend to utilize participating securities.

GOVERNMENT LEVERAGE

An SBIC in good standing, with a demonstrated need for funds, may receive leverage equal to 300 percent of its private capital. In addition, an SBIC with at least 50 percent of its "total funds available for investment" invested or committed in "venture capital" may receive an additional tier of leverage per dollar of private capital for total leverage of 400 percent of private capital. However, in no event may any SBIC draw down leverage in excess of $90.0 million. To obtain leverage, SBICs issue their debentures which are guaranteed by SBA. Pools of these SBA- guaranteed debentures are formed, and SBA-guaranteed participation certificates, representing an undivided interest in the pools, are sold to investors through a public offering. Under current procedures, the debentures have a term of five or ten years, and provide for semi- annual interest payments and a lump sum principal payment at maturity. The five year debenture does allow prepayment. The ten-year debenture does allow prepayment during the first five years. Thereafter, the debenture may be prepaid without a penalty. In

either case, the rate of interest on the debenture is determined by market condi- tions at the time of the sale.

TAX ADVANTAGES

Besides the opportunities for government leverage, all SBICs can benefit from a number of tax advantages. Tax counsel should be consulted regarding tax laws and regulations.

ADVANTAGE TO BANKS

Bank ownership in an SBIC subsidiary permits banks to invest in small businesses in which they could not have otherwise invested, because of banking laws and regulations. A bank may invest up to 5 percent of its capital and surplus in a partially or wholly-owned SBIC.

FINANCING SMALL BUSINESS CONCERNS

SBICs can obtain financing through a number of means: acquiring private equity capital, publicly selling stock, taking advantage of government leverage, issuing debt securities, and obtaining loans. In turn, it is the function of the SBIC to act as a financier for small business concerns. Such financing is specifically tailored to the needs of each small business concern. As financier, the SBIC has a variety of options.

LOANS

SBICs can make long-term loans to small business concerns in order to provide them with funds needed for their sound financing, growth, modernization, and expansion.
An SBIC may provide loans independently, or in cooperation with other public or private lenders. SBIC loans to small business concerns may be secured, and should be of reason- ably sound value. Such a loan may have a maturity of no more than 20 years, although under certain conditions the SBIC may renew or extend a loan's maturity for up to 10 years.

DEBT SECURITIES

An SBIC may elect to loan money to a small business concern in the form of debt securities - loans for which the small business concern issues a security, which may be converti- ble into or have rights to purchase equity in the small business concern. These securities may also have special amortization and subordination terms.

EQUITY SECURITIES

By law, the SBIC must provide equity capital to small business concerns, and may do so by purchasing the small business concern's equity securities. The SBIC may not, however, become a general partner in any unincorporated small business concern, or otherwise become liable for the general obligations of an unincorporated concern.

LICENSING REQUIREMENTS

A Corporation of limited partnership may apply to the Small Business Administration for a license to operate as a Federal Licensee under the Small Business Investment Act of 1958, as amended, and the rules and regulations issued thereunder.

With only a few exceptions, there are no restrictions on the ownership of SBICs. Almost any person or organization with a minimum initial private capitalization of $5 million and an SBA-approved full time manager who will be in charge of the licensee's operations and who is able to serve the licensee's small business concerns, may be approved for ownership.
For example, SBICs may be:

- Owned and operated by U.S. or foreign operating companies, banks, insurance companies, finance companies, or savings institutions.
- Publicly or privately held.
- Managed under contract by asset management companies or fiduciaries.
- Owned as subsidiaries of other venture capital organizations who want to realize the advantages of the SBIC form of organization while retaining the parent company's autonomy.

Once licensed, each SBIC is subject to annual financial reporting and biennial onsite compliance examinations by the SBA, and is required to meet certain statutory and regulatory restrictions regarding approved investments and operating rules.

REGULATORY REQUIREMENTS

The SBA, in the regulatory process, seeks to minimize its oversight of SBICs. The regulations listed below exist to protect the interests of small business concerns and the integrity of the program, and to ensure its overall effectiveness.

SIZES AND TYPES OF BUSINESSES

SBICs may invest only in qualifying small business concerns or, if the SBIC has temporary idle funds, certain short term instruments (Federal Government securities, insured S&L deposits, CDs, and demand deposits). SBICs may not invest in the following: other SBICs, finance and investment companies or finance-type leasing companies, unimproved real estate, companies with less than one-half of their assets and operations in the United States, passive or casual businesses (those not engaged in a regular and continuous business operation), or companies which will use the proceeds to acquire farm land.

CONFLICT OF INTEREST

An SBIC may not engage in "self-dealing" to the advantage of or with favoritism to its associates. The SBA defines associates broadly to include:
- Certain of its shareholders, officers, directors, and employees;
- In an unincorporated SBIC, its members, control persons, and employees.
The SBIC may not directly or indirectly provide financing to any of its associates. It may not borrow money from a small business concern it has financed, nor from the small concern's owner or officers.

CONTROL

An SBIC is not permitted to control, either directly or indirectly, any small business on a permanent basis. Nor may it control a small business in participation with another SBIC, or its associates. In cases of inordinately high risk, the SBA may allow an SBIC to assume temporary control in order to protect its investment. But in those cases the SBIC and the small concern must have an SBA-approved plan of divestiture in effect.

OVERLINE LIMITATIONS

Without written SBA approval an SBIC may invest no more than 20 percent of its private capital in securities, commitments, and guarantees for any one small concern. For SSBICs the limit is 30 percent.

COST OF MONEY

The cost of money on SBIC loans and debt securities issued by small concerns is regulated by the SBA in the interest of the small business concerns, and is limited to the applicable state regulations governing such loans and debt securities, or by SBA regulations, whichever is lower.

PROHIBITED REAL ESTATE INVESTMENTS

An SBIC may not invest in farm land, unimproved land, cemetery subdividers or developers, or any small concerns classified under Major Group 65 (Real Estate) of the SIC Manual, with the exception of subdividers and developers, title abstract companies, real estate agents, brokers, and managers.
Investment in real estate related businesses is limited to one third of the SBIC's portfolio, and combined investment in real estate related activities (building contractors, hotels, and lodging places, etc.) is limited to two thirds of an SBIC's portfolio investments.

PROHIBITED RELENDING, REINVESTING

SBICs may not provide funds for a small concern whose primary business activity involves directly or indirectly providing funds to others, purchasing debt obligations, factoring, or leasing equipment on a long- term basis with no provision for maintenance or repair.
However, SBICs and SSBICs may finance Disadvantaged Concerns engaged in relending or reinvesting activities (except agricultural credit companies, and those banking and savings and loan institutions not insured by agencies of the Federal Government).

PROCEEDS OF FINANCING

In general, investment funds used to purchase securities must go directly to the small business concern issuing the securities. They should not be used to purchase already outstanding securities such as those on a stock exchange, unless such a purchase is necessary to insure the sound financing of a small concern, or when the securities will be used to finance a change of ownership. The purchase of publicly offered small business securities through an underwriter is permitted as long as the proceeds of the purchase will go to the issuing company.

MINIMUM PERIOD OF FINANCING

Loans made to and debt securities purchased from small concerns should have minimum terms of five years. Under certain circumstances, loans to disadvantaged concerns may be for minimum terms of four years. The small concern should have the right to prepay a loan or debt security with a reasonable penalty where appropriate.
Loans and debt securities with terms less than five years are acceptable only when they are necessary to protect existing financings, are made in contemplation of long-term financing, or are made to finance a change of ownership.
Miscellaneous Regulations
In addition to the specific regulations listed here, SBICs are subject to certain other regulations regarding activities, operations, and reporting, which must be followed to insure the continuation of the SBIC license and its related advantages.

Annex 12

REPUBLIC OF TUNISIA
PRIVATE SECTOR ASSESSMENT UPDATE

Sources Of Information For The Report

The findings and recommendations presented in this study are based on an analysis of data from the following sources:

- A survey of 397 enterprises, including 97 microenterprises, conducted by the *Institut Arabe de Chefs d'Entreprise* (IACE) from April to June 1999, using a questionnaire (125 questions) designed by the Bank and adapted by the IACE to facilitate the survey.
- Selected in-depth interviews with enterprise managers, financial intermediaries, domestic and international investors, and Government officials.
- Other data gathered from the Ministry of Economic Development, *Agence de Promotion de l'Industrie* (API), Central Bank, Ministry of Finance, and other agencies.
- A review of the legal and regulatory regime, including all relevant laws for private sector development, conducted by Tunisian and foreign experts for the *Centre d'Etudes Juridiques et Judiciaires* (CEJJ) in 1996.
- An investor perception study and an investor targeting strategy for Tunisia, prepared by the World Bank's Foreign Investment Advisory Service (FIAS) for the Tunisian Foreign Investment Promotion Agency in 1998.

In addition, the report draws on:

- A survey of 203 exporters and potential exporters and financial institutions on the issues and constraints to export development, conducted by *SCET Tunisie* in December 1998 in the context of preparing an export development project.
- A study of administrative bottlenecks to private sector activity, commissioned by *Ministère de la Coopération Internationale et de l'Investissement Extérieur* (MCIIE), financed by USAID, and conducted by Price Waterhouse Coopers, in association with the Services Group.
- A survey conducted by the *Institut d'Economie Quantitative* (IEQ-1996), covering 179 Tunisian firms in manufacturing and tourism. About half the firms employs more than 200 persons, which is relatively large by Tunisian standards. The other half employs between 20 and 200 persons. About a third of the firms have offshore status.
- A survey conducted by the Ministry of International Cooperation in 1995 concerning the perception of 124 European investors about the Tunisian business environment.