PROSPECTS FOR PRIVATIZATION OF THE TURKISH TELECOMMUNICATIONS SYSTEM

THESIS

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By

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Turkey is considering privatizing its telecommunications system. Any developing country must analyze whether its economic, social, and institutional environment is appropriate for the privatization of a utility.

The purposes of this study are (1) to establish a model to assist policy makers, (2) to analyze whether Turkey meets the prerequisites for telecommunications privatization, and (3) to provide Turkish leaders pragmatic policy alternatives pertaining to privatization of the Turkish Telecommunications system.

High inflation rate, weakness of the private sector and the lack of regulatory regime are the major impediments facing Turkey's privatization efforts. Turkey might consider several options including (1) not privatizing at all, (2) retaining public ownership of the network operations while privatizing only the physical equipment market, or (3) following the British privatization model.

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CHAPTER 1

PROSPECTS FOR PRIVATIZATION OF THE TURKISH TELECOMMUNICATIONS SYSTEM

This study attempts to establish a model in order to help policy makers, especially those in the third world who are planning to privatize their telecommunications systems. First, Turkey's exact economic development level is identified among both developed countries (DCs) and less developed countries (LDCs) since the literature shows different prerequisites for privatization of telecommunications in these differing worlds. Next, an examination is made of whether Turkey meets the prerequisites for telecommunications privatization required in the literature. Then, a case study is undertaken of the privatization of the British Telecommunications in order to see if there were lessons which might be applicable to Turkey. Finally, several policy options based upon this information are considered to assist the Turkish leaders.

Privatization of state-owned enterprises (SOEs), a major theme of the Thatcher government in Great Britain, became a world wide movement during the 1980s. Privatization of the British Petroleum in 1979 marked the beginning of this movement. Since that time, privatization has

influenced as many as 87 countries excluding Eastern Europe and the former U.S.S.R.

The world wide scope of the move to privatize SOEs is seen in the data taken from Vuylsteke's (1988) survey pertaining to various regions. According to the survey, a total of 563 SOEs throughout the world were privatized as of 1988, privatization of another 196 SOEs were underway, and 531 SOEs were in the planning stage to be sold. Data are not yet available for 1991 or 1992 but the numbers are likely to increase.

A total of 27 African countries, from Cameroon to Togo and Uganda, have privatized 155 state-owned enterprises as shown in Table 1. Privatization of 45 other SOEs were underway, and 254 SOEs were in the planning stage to be privatized. In Asia, 14 countries, including China, Japan, Thailand, Malaysia, and Pakistan, have privatized 63 SOEs. Privatization of 19 SOEs were underway and plans were to privatize another 104 SOEs.

Pacific countries such as Australia, Fiji, and New Zealand also have privatized five SOEs and privatization of 11 SOEs was underway. Twenty-three additional SOEs were planned for privatization. Canada too has privatized 40 SOEs, privatization of three other SOEs was underway, and privatization of 13 SOEs were in the planning stage. Privatization also has come to the United States. The U.S. federal government privatized three governmentally owned

Table 1. Regional Survey of Privatizations by Stage of Completion as of 1988 Data

Region	All Transactions other than Management Contract				Management Contracts			Grand Total
	Planned	Underway	Completed	Subtotal	Planned	Underway	Completed	
Africa	254	45	155	454	8	0	49	511
Asia	104	19	63	186	1	0	9	196
Pacific Countries	23	11	5	39	1	0	0	40
North America								
Canada	13	3	40	56	0	0	0	56
U.S.A.	17	2	3	22	0	0	0	22
Latin America and Caribbean	49	98	122	269	0	1	2	272
West Europe	63	9	164	236	0	0	1	237
Middle East	8	2	9	19	0	0	0	19
Turkey	*	7	2	9	0	0	0	9
Grand Total	531	196	563	1290	10	1	61	1362

*For various reasons, including lack of recent data, planned privatizations were omitted. Source: Derived from the Vuylsteke's Regional and Country Survey of Privatization Operations by Stage of Completion. Charles Vuylsteke, "Techniques of Privatization of State Owned Enterprises." Vol. 1. Methods and Implementation. Technical Paper No. 88. Washington, D.C.: World Bank. 1988.

enterprises before 1988 and two other SOEs were underway when the survey was made. Seventeen other SOEs were planned for privatization as of 1988 (Vuylsteke 1988).

Some 17 Latin American and Caribbean countries, for instance, Argentina, Brazil, Mexico, Panama, Uruguay and Venezuela, privatized 122 SOEs, and 98 other privatizations were underway. Plans were to privatize 49 other SOEs.

The privatization movement has also greatly influenced European countries. In Western Europe, 13 countries have privatized a total of 164 SOEs and 63 others were at the planning stage. Gulf States, Iraq, Israel, Jordan, and Oman in the Middle East also have privatized nine SOEs, two SOEs were underway, and eight others were in the planning stage. Turkey at the time of the survey had privatized only two of its SOEs but was considering privatization of seven others.

The political transformation in Eastern Europe in the late 1980s which led to the collapse of socialist regimes and the beginning of multiparty systems with freer economies created the environment for an even larger number of privatizations. Also the breakup of the former Soviet Union in 1990 extended this movement throughout all of the former Soviet bloc. Socialist economies literally were forced to change. Many of them are now in the painful birthing process of creating free enterprise economic systems, and privatizations of SOEs has become essential to their economic well being.

Privatization is likely to be the crucial component in transforming the Eastern bloc countries to a free market throughout the 1990s, and it may take decades. Without privatizing SOEs, it is unlikely that these socialist economies can be restructured. There are many social, political and cultural barriers facing the efforts to privatize. Massive layoffs are expected as a result of such major economic and industrial adjustments. Unrest by workers could slow or even stop governments' plans (Schares 1990). Without rapid privatization, however, there is a danger of economic stagnation and accompanying political instability as various interest groups compete for state controlled resources (Manasian 1991). It is widely believed that rapid and widespread privatization will be a catalyst in making production and distribution systems competitive and workable.

Already the Eastern European countries of Bulgaria, Czechoslovakia, Hungary, Poland, Romania, and Yugoslavia are dismantling their centrally planned systems and creating environments needed for a market economy (Wapenhans 1990). Two thousand SOEs are being privatized by Hungary's State Property Agency (Humpreys 1991). The U.K. and the World Bank are helping Hungary to accelerate privatization. Czechoslovakia is transforming the socialist system into a market economy through commercialization, de-monopolization, and privatization of industry in conjunction with other

economic policies (Charap and Dyba 1991). Seventy percent of the country's 4,800 SOEs are being sold through auctions beginning in January 1992 (Creating the Invisible Hand 1991). The most rapid and astonishing privatization, however, is taking place in East Germany. The government is selling off 100 firms a week. It has already sold off more than 20,000 small businesses. By the end of July 1991, the number of privatized industrial firms had reached 3,000 (Privatizing East Germany 1991). Similarly, Poland is planning to privatize 50% of the present state sector within three years. Its overall goal is to achieve an ownership structure similar to that of Western Europe within five years (Fallenbuchl 1991). Romania's transition to a market economy also requires substantial time and effort. After the passage of the foreign investment law, foreign investors can own up to 100% of Rumanian companies and may invest in all sectors of the economy (Martin and Glick 1991).

In Russia, officials of the old order, from factory managers to KGB officials, individually already are privatizing the economy by illicitly converting public assets into their personal property and diverting state resources into what they consider more efficient uses (Roberts 1991). However, if Russia is to be unshackled from the inertia of the old regime, proper denationalization of SOEs in one form or another will be crucial to economic reforms.

As a result of the catastrophic changes in the world since the late 1980s, privatization is not merely a temporary or insignificant policy item on the world's policy agenda. It is basic and essential to the rebuilding of socialist states, particularly in Eastern Europe, and it is likely to become an even more vital policy tool for all governments, including the government of Turkey, in the future. The future of privatization depends largely on whether it is successful in making the economies more competitive and productive.

The Purpose and Significance of the Study

At the present time Turkey is considering privatizing the state-owned telecommunications system, Postal, Telephone, Telegraph (PTT). The purpose of this study is to analyze Turkey's political, economic and institutional status to see if it has the required prerequisites needed for privatizing a public utility, such as the telecommunications system. In order to discover what prerequisites a country needs to successfully change from a state-owned system to a privately owned system, a case study is made of the privatization of the British Telecommunications system in 1984. From the case study of the British experience, I hope to discover the barriers or obstacles to privatization and what can be learned and transferred to Turkey from Britain's experience.

Turkey since 1980 has privatized approximately 40 SOEs such as cement plants, auto manufacturers, and electrical appliances producers. Most of these privatizations have been of firms which in developed capitalist countries normally would be in the private sector, and few, if any, would be classified as public utilities in the west. The proposal to privatize PTT presents some unique problems, since it has all of the characteristics of a public utility in the west. It provides an essential service which is needed throughout the country. It is a natural monopoly in that competition does not improve the service. In fact, it may damage service to have more than one telephone company; and it is almost impossible for competitors to enter the field because of the large capital investment required. Without competition, government regulation is the only way of ensuring that the company does not charge excessively high and unfair rates for the service and that service is provided throughout the country.

Privatization poses different problems and constraints within different contexts. Lack of empirical support is the biggest problem of privatization in all contexts in developed and developing countries. While proponents often claim vigorously that privatization will lead to substantial improvements in the performances of inefficient SOEs, they have no empirical evidence that privatization will necessarily improve efficiency of these firms or work to the

advantage of the country. There are few, if any, studies backed by empirical evidence that privatization necessarily improves the operation of SOEs. Without empirical evidence, proponents and opponents of privatization fall back on their ideological positions. As a result, privatization becomes a very controversial political issue. In the third world, privatization of public utilities such as electric, gas, telephone, water, and transportation becomes an especially crucial issue since they provide essential services and affect the welfare of everyone.

For telecommunications privatization to succeed in the third world, there needs to be a capital market, a well-developed entrepreneurial/managerial group, skillful public officials, a strong enough private sector, a sufficient technological base, and an efficient regulatory system that can ensure universal service at a fair and reasonable cost. Existence of a developed stock market is a crucial vehicle for conducting the sale of SOEs (Murphy, 1988). A well developed, entrepreneurial managerial group to administer large private enterprises is a necessity for privatization (Molz 1989). The sensitive issues posed by privatization cannot be solved without having educated, skillful public officials (Levine, Peters, and Thompson 1990). Without a strong enough native private sector, SOEs cannot simply be privatized. Reliance only on foreign investors will not work in these countries. No LDC should consider privatizing

its telecommunications without reaching a sufficient technological level compatible with world standards (Molz 1989). Establishment of an efficient regulatory system is another crucial prerequisite for utility privatization. It cannot be turned in to private hands otherwise (Crafts 1988). Before privatization of telecommunications system, telephone services must reach at least 80% of households in the country (Hills 1989). Otherwise the rural population may be deprived of a vital service (Ambrose, Hennemeyer, and Chapel 1990). Unfortunately, these prerequisites are not present in most third world countries. Furthermore, MNCs pose a challenge to the sovereignty of many of these countries, further complicating the problem.

The primary purpose of this study is to provide a model for policy makers in third world countries which will help in making prudent decisions. Turkey faces many of the same challenges as other third world countries in its attempt to privatize the telecommunications company, the PTT.

This research will analyze Turkey's abilities to privatize a public utility such as the telecommunications system. It will explore the constraints the country faces and the problems which are likely to arise if privatization is carried out without meeting all the prerequisites needed to ensure that the change works to the advantage of the entire country.

This study should be of value to the political leaders and governmental administrators responsible for the decisions to privatize and for maintaining economic stability and the welfare of the public. Privatization of public utilities can cause major political, social, and economic change in a country. Its consequences should be studied carefully before the decision is made to embark on such a significant venture.

Research Questions

The following research questions were prepared to guide the research. These questions also are essential to decision makers involved with the policy of privatization. They are as follows:

I. Does Turkey have the prerequisites essential for successfully privatizing a public utility such as PTT?

   A. Is Turkey's economic performance more like the economies of LDCs or DCs? To determine this, several essential economic indices are compared:

      1. Growth rate
      2. Inflation
      3. Unemployment
      4. GNP per capita (and other macroeconomic indicators)

B. Are the constraints, obstacles, and barriers present in many LDCs also applicable to Turkey's efforts to privatize its telecommunications systems?

1. Lack of capital market
2. Lack of entrepreneurial/managerial group
3. Lack of strong enough private sector
4. Lack of technological base
5. Lack of skillful public officials
6. Insufficient universal service level
7. Multi national corporations (MNCs) threat

II. Should Turkey decide to privatize PTT, what actions should be taken to protect the public interest?

A. What kind of regulatory requirements should be placed on new owners?

1) Prices of the service
2) Quality of the service
3) Universal service

B. What organizational, structural, managerial, cultural adjustments should be made in order to transfer ownership from public to private?

C. How should the competition issue be handled in order to protect and promote consumers' interests?

D. How can they ensure that sovereignty will not be infringed by the presence of MNC?

Methodology

An analytical framework was developed from the literature review in order to discover problems and constraints of privatization within different contexts (see Figure 2, p. 28). This framework helped to answer the question of whether Turkey's political and institutional environment is appropriate for privatization.

Since the constraints and problems of privatization differ from context to context, exact verification of Turkey's economic place among DCs and LDCs was necessary. In order to identify Turkey as either a DC or an LDC, a comparison was made in terms of macroeconomic indicators and physical quality of life indices of both DCs and LDCs. Comparisons help to pinpoint the characteristics of the subject that are "special" and the extent of its divergence from other groups (Weiss 1972). Cross-sectional comparisons are used during data analysis. Cross tabulations, tables, and figures are employed for statistical explanations.

Policy research such as this study analyzes fundamental social problems in order to provide policy makers with pragmatic action oriented recommendations for resolving problems and making policy (Majchrzak 1989). Case studies are frequently used in this type of research since they are

particularly useful in providing background information and in permitting comparative examinations of policy experiences. They are intensive. They bring to light the important variables, processes and interactions that deserve more extensive attention (Isaac and Michael 1981). They pioneer new ground and often are the source of fruitful hypotheses for further study, and they provide useful anecdotes or examples to illustrate more generalized statistical findings (Isaac and Michael 1981).

In order to develop a model and discover what may be learned and transferred from the privatization of British Telecommunications, a case study is undertaken. Pre- and post-privatization performance of BT are compared to derive conclusions about the results of telecommunications privatization in the U.K.

From the analysis and synthesis of qualitative and quantitative data, specific, action oriented policy recommendations are developed to help policy makers in their decisions about alternative policy options.

CHAPTER 2

EFFORTS AND CONSTRAINTS ON PRIVATIZATION IN TURKEY

Turkey, with one foot in Europe and the other in Asia, has been aptly described as the "cradle of civilization" with traces of human habitation dating back to 6500 B.C. (Raggett 1986). For centuries it has stood at the crossroads of the major trade routes between east and west, a meeting place for peoples of varied cultures and religion (Raggett 1986).

The Republic of Turkey was established in 1923 after the fall of the Ottoman Empire at the end of the first world war. The economic policy established by the founders of the new republic basically was a form of statism, somewhere between the socialist economic system and western market economics. In order to protect domestic firms and promote native industry, an inward oriented, import substitution strategy was followed until the 1980s. From the early 1930s to the late 1970s, SOEs were relied on to promote the country's economic objectives because the country did not have adequate human and private capital to meet the needs otherwise. There were few private enterprises of any size and a scarcity of entrepreneurs. SOEs became the main tool

for developing modern Turkey. They compensated for the lack of an indigenous business elite at the time (Onis 1991) and for the shortage of physical and human capital.

SOEs have been relatively successful in developing Turkey and today are operated as profitable enterprises. As a result, the argument for privatization of SOEs usually used in less developed countries, where SOEs are unprofitable and loosing money, cannot be relied upon to justify privatization in Turkey. In most countries it can be argued that privatization will reduce the budgetary burden of SOEs and raise revenue for governments. Contrary to widespread belief, SOEs are not loosing money in Turkey. The average profit rate on investment of all SOEs between 1980 and 1987 is around 19% (Kepenek 1990). These rosy results, however, are not solely because of the productivity of SOEs, but partially because of increases in prices on SOE products. The government has frequently relied on the SOEs' ability to raise revenues to reduce deficits in the public sector. As general governmental budgets have increased and deficits have been incurred, the governments have turned to the SOEs for additional money rather than raising tax levies. This practice has permitted a reduction in the public sector borrowing requirement (PSBR) from 11.6% of GNP in 1980 to 5.6% in 1986 (Rodrik 1990). Public sector borrowing requirement is defined as the ratio of the public sector deficit to gross national product (GNP). Since the

SOEs help reduce the budget deficit by increasing prices of their services, they obviously help keep the ratio down.

During the 1990s, however, PSBR has increased again since inflation has made it difficult to raise the price of SOE services enough to lower the ratio. The PSBR was 10.5% in 1990 and 12.6% in 1991. The government has targeted 8.8% as the desirable level in 1992. Some of the SOEs such as public utilities selling electrical power or telephone services are quite profitable and actually make money for the government, but other types of SOEs which provide vital services but do not have an essential product to sell must turn to the governmental budget for subsidies. Increases in the operating budget's spending and capital subsidies from the general budget for these types of SOEs have played an important role in increasing the PSBR (Government Program 1992).

Economic policy in Turkey was changed dramatically in the 1980s from the import substitution strategy to an export-oriented growth policy, in conjunction with greater reliance on market forces which were expected to reduce the size of the government in the economy. This shift in policy was motivated partially by efforts to join the European Economic Community, an attempt to promote closer relationships with U.S.A., as well as the need for more economic growth to meet the requirements of a growing population. In 1983, after the first democratic elections

since the military coup of 1980, the Ozal government made privatization a key issue on its agenda in order to accelerate the transition to a market oriented economy. The new government commissioned Morgan Guaranty, a New York bank, to prepare a master plan for privatization. It presented a plan to the Turkish government in 1986 for privatizing some of the SOEs that account for 40% of Turkish industrial production (The Delights of Turkish Privatization 1987). The first privatization took place in December 1984 with the sale of Bosphorous Bridge to the public through revenue sharing certificates, with the government retaining a significant minority share. Keban Dam and Oymapinar power stations became the second industry in January 1985 offered to the public using the same technique. Later in 1988 four other SOEs were sold off, namely Teletas, a telephone equipment manufacturer, Ansan, USAS, and five cement plants. All of these firms were considered to be the types of industries which would profit from and generate competition. Teletas, a telephone equipment manufacturer, Ansan, a bottling company, USAS, an airport service group, and the five cement plants all were typical private enterprise industries in capitalist societies. Only Teletas, however, was offered publicly in the Turkish stock market (Keller 1989). The three other companies privatized in 1988 were all sold directly into foreign hands (Keller 1989).

From 1990 through 1992, Turkey has privatized many other industries. Total revenues from the sale of SOEs from 1986 to 1991 were around $938 million and during 1992 it is estimated that the government will receive another $867 million (PPA 1992). The volume of sales has increased rapidly in recent years.

Some of these recent sales are of companies which in the west would be called public utilities, and accordingly would be closely regulated or publicly operated. For instance, the Turkish government sold Cukurova Electrik and Kepez Electrik A.S., two electrical generating and distributing companies in 1990. In 1991 it also sold 30% of an insurance company, the Gunes Sigorta A.S., to a French company. Even stocks in government owned banks, such as Caybank, were sold. Major industrial and transportation facilities also were privatized during this period. The largest flat steel producer in the country, Eregli Demir Celik Fabrikalari (ERDEMIR), and two steel cable companies, Celik Halat and Tel Sonayii A.S. and TURKKABLO, were sold to private companies. One of the major automobile manufacturers in the country and its marketing affiliate (TOFAS Turk and TOFAS Oto), as well as part of the country's petroleum refineries (TUPRAS), have become part of the private sector as a result of privatization. The national Turkish airline today is a private enterprise as a result of the privatization movement, and a host of other typical

business type SOEs such as cement companies, food canneries, chain stores and paper sack manufacturers have been sold to private enterprise during recent years (PPA 1992).

Turkey has shown its capability to privatize SOEs. However, privatization of telecommunications is an entirely different area. Most of these earlier privatizations were of firms which can normally be owned and operated by the private sector. Since the telecommunications industry has the characteristics of a public utility and provides an essential service to all society, its privatization poses important problems. Telecommunications is considered to be the heart of the nation's economy and it is believed that it will be the most vital industry during the next 25 years (Butler 1990). Privatization of telecommunications systems is a complicated issue, even in DCs. It is much more complex in LDCs. Consequently, even though Turkey has the ability to privatize its other types of SOEs, examination of Turkey's ability to privatize its telecommunications system is necessary in order to make prudent decisions on a vital industry in the country.

In order to protect consumers, creation of competition and regulation of monopolistic practices are crucial. Control over prices and ensuring the availability of services are major concerns of the Turkish people. Unfortunately, no evaluations of the impact of the privatization of SOEs in Turkey have been undertaken, nor have any regulatory systems

been established to ensure fair pricing practices in these newly sold industries. Also, no studies have been undertaken to see if privatization of these activities has increased competition or if unregulated private monopolies are being created.

Since 1983, inflation has increased from 30.5% to 55.4% per annum in 1991 according to data of State Statistics Institution. The contribution of privatization to inflation cannot easily be calculated because there are numerous other critical variables. It seems logical, however, that if monopoly conditions are being created by privatization, this stimulates inflation. This conclusion, however, has not been documented with empirical research.

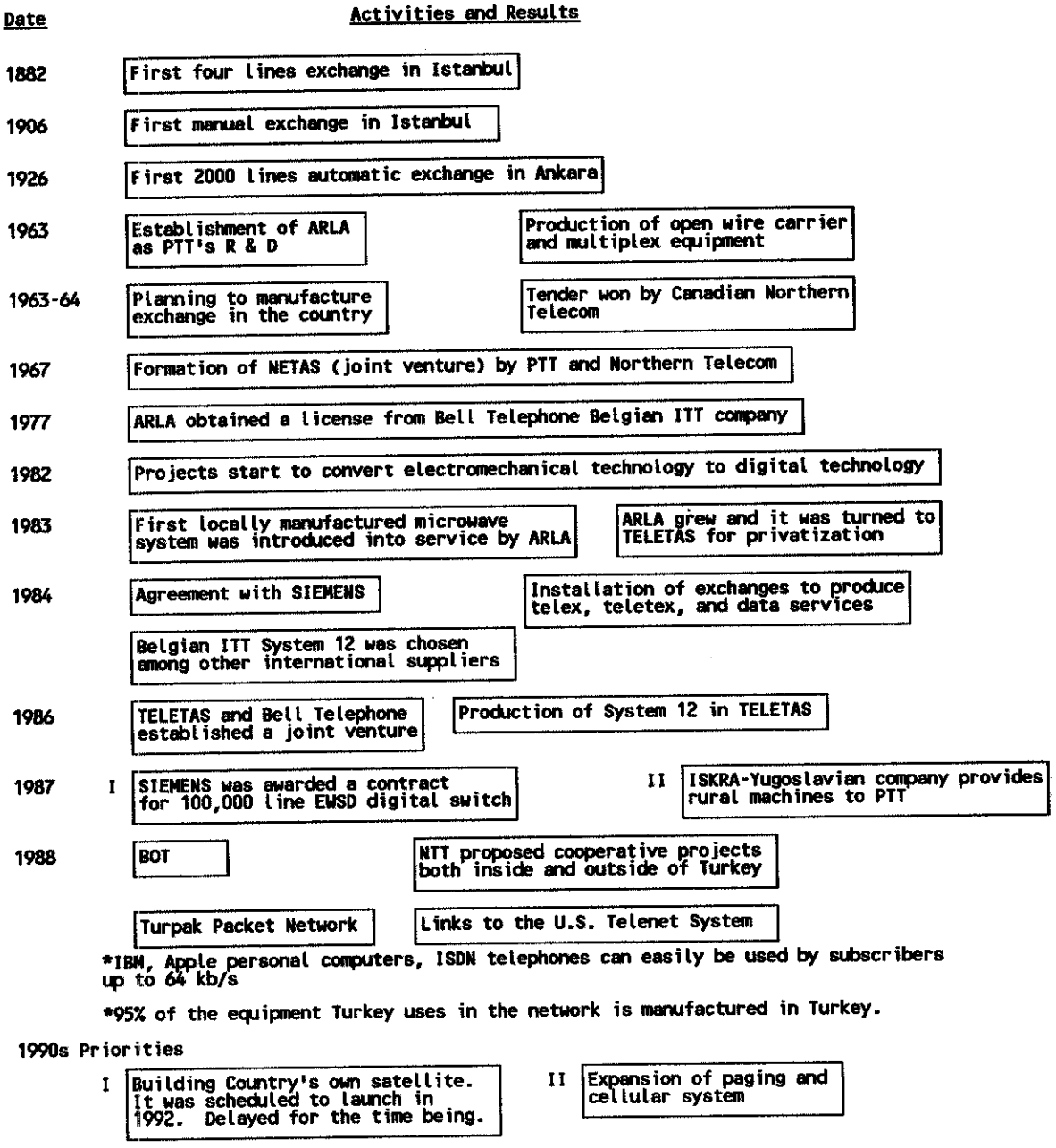
Plans to Privatize Telecommunications in Turkey

The Turkish government is also planning to privatize the Turkish telecommunications system. A small part of this system, Teletas, an equipment manufacturer, was privatized in 1988. The Turkish PTT is the main organization responsible for supplying telecommunications services in the country as well as postal services. The Turkish telecommunications administration is not a regular government department but rather is operated as a governmental corporation, somewhat similar to the postal system in the U.S. It has operated as a commercially oriented state enterprise since the 1930s (Williamson 1988).

The development of the telecommunications system in Turkey can be traced back as early as 1882. This evolution is depicted in the time line as Figure 1. The first exchange was installed serving four lines in Istanbul, during the time it was the capital city of the Ottoman Empire (Raggett 1986). The system in Istanbul grew slowly and in 1926 the system was expanded to Ankara, the newly established capital city of the country. Even though the system grew continuously from the early beginnings, most of the country still did not have phone service as late as 1963-64.

In order to expand its service area, the Turkish government entered a joint venture with a Canadian company, Northern Telecom, in 1967. PTT also established a research and development organization, ARLA, at this time. Soon the first locally manufactured microwave system was put into service after ARLA obtained a license from Bell Telephone Manufacturing, the Belgian ITT company (Raggett 1986). The system expanded rapidly after this and today telephone service is provided throughout most of Turkey. In 1984, the system was further improved to provide telex, teletex, and data services normally found in the more developed telecommunication systems.

Figure 1. Evolution of Turkish Telecommunications System



Source: Researcher's own design derived mostly from the interview of R. J. Raggett with Emin Baser, the General Director of PTT Administration in "Emin Baser Outlines an Ambitious Program for Turkish PTT," Telephony 211 (July 28, 1986): 38-42.

PTT also began to convert the electromechanical technology of the 1960s to the digital technology of the 1980s in 1982. Even though the joint venture with the Canadian company NETAS was still in existence and had digital systems in service, PTT decided that competition would improve quality and prices (Raggett 1986). As a result, it asked for competitive bids for providing new equipment. In quest of an appropriate company that could provide digital switching, PTT administration formed a team and conducted an industrial survey of other companies such as AT&T, Ericsson, Fujitsu, GTE, ITT, NEC and SIEMENS. Ultimately it decided on a new system which PTT started to manufacture at its newly organized division, Teletas (Raggett 1986).

NETAS, the joint venture, is still the largest indigenous producer of telecommunications equipment in Turkey and the Middle East (Williamson 1988). Fifty-one percent is owned by Canada's Northern Telecom and 49% by PTT. In 1987, Teletas, formerly the PTT's ARLA research establishment, and Belgium's Bell Telephone Manufacturing established a joint venture. The same year, SIEMENS also entered the picture when it was awarded an initial contract to supply 100,000 lines of EWSD digital switch. Yugoslavia's Iskra also now provides small rural machines to the PTT (Williamson 1988).

Operation of the entire communication system in Turkey is in the hands of the PTT. Although PTT has divested itself of its holdings in NETAS and Teletas and privatization is underway, the organization maintains its involvement in equipment supply and provision through its laboratories in Istanbul and Ankara (Williamson 1988). Major expansion of research facilities is under review so Turkey can become self-sufficient in software.

Turkey has expressed interest in entering build-operate-transfer (BOT) agreements with several international companies. Under such BOT arrangements, an outside organization builds a system and operates it for an agreed period, or until a certain level of returns are realized. Then the facility reverts to the PTT (Williamson 1988). The administration believes that such agreements are favorable to the country and PTT would acquire technology not otherwise available. Such cooperative efforts by PTT with the international market already has improved the country's telecommunications system to where international, domestic companies, and individual subscribers are able to use and generate computer data with every type and model computer in Turkey. At the same time, the country is expanding its paging and cellular system, and is ready to launch its own communications satellite (Williamson 1988).

Plans are to bring telecommunications in the country to levels higher than many other European countries (Raggett

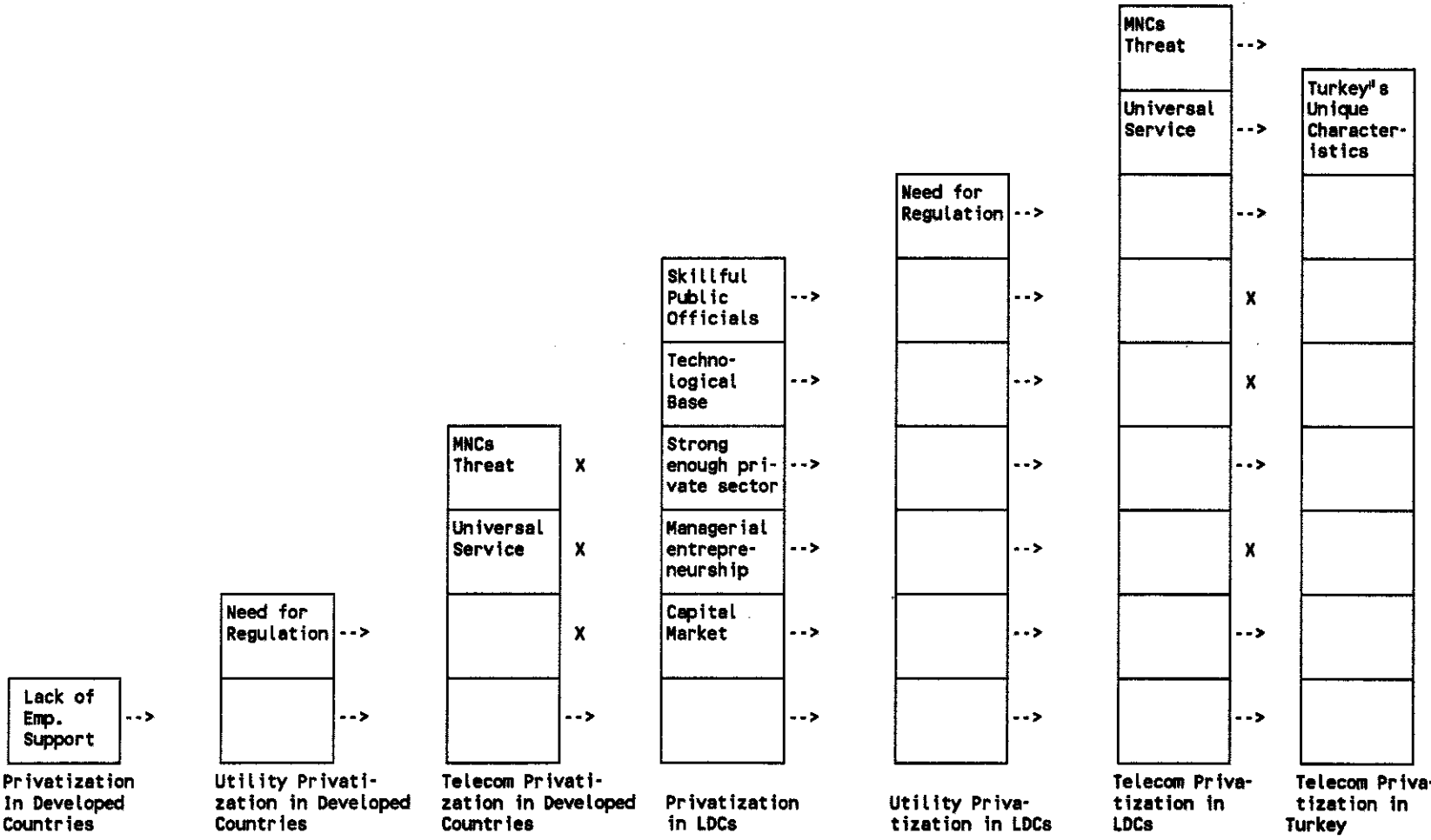
1986). Turkey's ability to cooperate with overseas companies and to create its own high technology industries demonstrates that the PTT is a highly successful modern enterprise (Raggett 1986).

Constraints to Privatization

As briefly mentioned in Chapter 1, constraints and problems of privatization differ from context to context. Although privatization has become a world wide phenomenon, one of the biggest problems of privatization in all contexts is the lack of empirical support for the claim that private ownership and operation is more productive and efficient than governmental operation. Whether it increases productivity and generates efficiency as a result of the introduction of market forces into SOEs is still an open question. The supposition that privatization per se will quickly lead to substantial improvements in the performances of inefficient state-owned enterprises is not well supported by the data (Yarrow 1989). It is true that, in many cases, there has been a history of improving profitability and labor productivity as a result of privatization, but the same is also true of both the private and public sector generally (Yarrow 1989). Privatization by itself does not ensure efficiency or productivity. Most of the added efficiency also can be achieved by reforms of the SOE-government relationship (Ahoroni 1988).

There are different constraints on privatization of SOEs in developed and developing countries. Also utility privatization poses additional constraints in that there is a need for a well designed regulatory system because of the monopoly characteristics of public utilities. Figure 2 attempts to show the constraints and problems to privatization in different contexts. On the left side of the figure constraints in developed countries are shown. The first column to the left is the constraint of the lack of empirical support for the claim that private ownership and operation is more productive and efficient. This becomes the center focus of political debate to privatize or not. In each of the following columns another need or constraint is shown for specific privatization schemes, such as the privatization of utilities in both developed and developing countries. In the second column, for instance, public utilities, if privatized, create a need for regulation to prevent monopoly prices from being charged. Column three adds two other constraints which must be met when privatizing a telecommunications system, a utility. It must be ensured that everyone throughout the country receives service, so provisions must be made for universal service. Also, if telecommunications systems are privatized, there is a big possibility that the multi national corporations may take over the country's telecommunications systems and this may present unique

Figure 2. Problems of Privatization in Different Contexts



Source: Researcher's own design.
--> constraint is transferrable to the next context
X constraint is not transferrable to the next context

problems to the government of states and may present a threat to their sovereignty. The constraints on privatization of SOEs utilities and specifically telecommunications systems in less developed countries are even more numerous than in developed countries. This is shown in a similar manner adding new constraints which must be considered in each privatization scheme. For instance, less developed countries considering privatization of their utility type of SOEs, specifically telecommunications systems, must also consider such aspects as whether the LDC has a strong enough capital market to support such a move. Does the country have a sufficient entrepreneurial managerial group to supply the leadership for such enterprises under private operation? Is the private sector strong enough to change public ownership and operation into private hands? Does it have an adequate technological base and public officials skillful enough to handle the complex problems of private utilities? Can it ensure that MNCs will not usurp its sovereignty? The last column to the right shows the constraints Turkey faces as it prepares to privatize its telecommunications system.

Utility privatizations in developed countries pose another very serious issue, that of a regulatory infrastructure. Without establishing a well designed regulatory system, the public interest may not be protected (see Column 2). Because public utilities are natural

monopolies, changing the ownership from public to private results only in the creation of a private monopoly and does not necessarily increase productivity or efficiency. A consensus exists that without a well designed regulatory system, public utilities cannot be turned over to private hands without harm to the public (Crafts 1988). A properly designed regulatory system gains higher priority than merely changing the ownership in developed and developing countries (Why Tax When You Can Sell 1986). The extent of regulation, if not balanced, may either cause harm to the public or be so restrictive as to keep private operators from successfully operating the project. The issue of monopoly prices and practices face utilities, whether they are publicly or privately owned and operated. Pricing, quality of service, and equity issues must be dealt with by the regulatory infrastructure.

Another major problem of privatization of telecommunications in developed and developing countries is ensuring universal service throughout the country, as shown in Column 3 of Figure 2. Telecommunications services can not be limited only to the profitable regions of urban areas, but need to be extended throughout the country (Ambrose, Hennemeyer, and Chapel 1990). If profit motivation of the private sector alone determines who gets service, the rural population may be deprived of a vital service and the country's economy could be damaged.

Universal service is a prerequisite of privatization of telecommunications in all contexts. Indeed, a number of industrialized countries have only considered privatizing their telecommunications sector after universal service had been attained (Ambrose, Hennemeyer, and Chapel 1990).

Another less visible threat of privatization of telecommunications is the political power of multi national corporations (MNCs). There were 26 world-class telecommunications equipment makers when the first digital central office switching systems came into service in the late 1970s according to Grigsby (1989). By 1984 the number had dropped to 18 and it is estimated that there will be only about six within four years and only three companies by the turn of the century. This trend of world wide monopolizations of telecommunications is a possible danger to national sovereignty if the country's telecommunications system is taken over by MNCs. This presents strategically important questions that need to be seriously considered before proceeding with privatization.

Privatization in LDC countries presents even larger numbers of constraints (see Column 4) than developed countries. The political, institutional, and economic environments of developing nations are markedly different from those of developed countries (Gill-Chin and Moore 1989). As a result, the theories and empirical evidence purported to justify privatization in developed countries

are not necessarily applicable in developing countries. Most scholars believe that the existence of a developed stock market is a prerequisite for privatization and financial modernization (Murphy 1988; Aylen 1987). Their reasoning is that if an active market already exists, it may rapidly become a vehicle for conducting the sale of SOEs which will in turn strengthen the market itself. Presence of a stock market also is evidence that a country has the prerequisite for private business to flourish.

Large privatizations in LDC countries are more difficult because there is not a well developed entrepreneurial/managerial group to lead the private enterprise according to Molz (1989). In most of these countries experienced and well educated managers capable of administering larger private enterprises have developed their managerial skills in the public sector. These managers, accustomed to administering politicized bureaucracies, do not necessarily have essential entrepreneurial skills necessary to lead enterprises in a free market environment (Molz 1989).

The capacity of the private sector in LDCs also may not be conducive to privatization. Privatization requires less government and more individual responsibility in economic activities (Molz 1989). In LDCs where these attitudes of individual responsibility are not prevalent, privatization requires a strong enough private sector and changes in

individuals' responsibility favorable to privatization before it can succeed.

A sufficient technological level compatible with modern world standards, such as the digital technology of the 1980s rather than electromechanical technology of the 1960s, is another requirement for privatization of telecommunications. Lack of technological base seriously impedes the operation of enterprise (Molz 1989). Sufficient technological base is necessary to maintain and improve research and development activities. Many LDCs, however, do not have the technical assets or capabilities and most are dependent on international firms for technological equipment and innovations.

The successful exploitation of competitive forces in privatization often depends on having the appropriate law and administrative rules, as well as their implementation by talented government officials (Levine, Peters and Thompson 1990). Privatization has to be carried out in a manner ensuring the public interest, as well as ensuring a profit for the private owners. These sensitive, crucial issues can not be solved without talented, educated government officials. Each of these constraints is shown subsequently in Figure 2.

In addition to these requirements and constraints, each country and each individual privatization has its own unique characteristics. Therefore, generalizations about

privatization may not apply to individual countries or privatizations. For instance, it is widely argued that governmentally owned telecommunications systems in developed countries are well run, effective organizations whereas in LDCs they are more costly to operate, provide poorer service quality and reliability and have limited service availability. These characteristics in LDCs, according to Lerner (1990), stem from lack of financial autonomy, insufficient incentives for efficient operations, inability to attract and retain highly qualified personnel, political influence on pricing and service decisions, and lack of access to capital markets. These particular conditions, described of telecommunications systems in other LDCs, are not present in Turkey. The PTT is effectively operated, prices are reasonable, and high quality, reliable service is provided.

The highest authority in the PTT, the board of directors, is partially insulated from politics. The board is responsible for all major policy decisions, purchases and senior staff appointments. There are five directors and a chairman. The chairman serves as the PTT director general (Williamson 1988). Financial autonomy, management authority, and political independence exist in Turkish telecommunications. The PTT is a successful public agency and, therefore, somewhat of an anomaly for developing countries. The success of PTT, however, does not

necessarily prove that Turkey is like a developed country and is not limited by the same constraints of LDCs.

This apparent anomaly in the case of PTT suggests that Turkey's economic development level must first be determined before the question of whether the Turkish telecommunications system can be privatized to the benefit of the nation can be answered. A comparative analysis of macroeconomic indicators in both LDCs and developed countries is needed in order to identify the exact economic position of Turkey. If Turkey stands closer economically to DCs than it does to LDCs, then Turkey does not have to be as concerned about many of these constraints and problems of privatization. After an identification of Turkey's economic development level, an analysis can be made of how well it meets the requirements for a successful privatization of this utility.

Even if it is found that Turkey's economic development level stands closer to that of DCs and that the country meets the essential prerequisites for the privatization of this utility, prudence dictates that an examination be made of the results of similar privatizations in other countries before a decision is made. The old adage of "look before you leap" is also applicable in this vital area of public policy. Should it be found that privatization of telecommunications in other countries has had negative results and has presented many problems, or vice versa, this obviously should be weighed in the decision process.

An examination of the consequences of privatization in other countries also should help in determining how best the process of privatization can be undertaken. As a consequence, after analyzing Turkey's own economic, cultural and institutional circumstances, a case study is undertaken of British telecommunications privatization. Even though Japan and Canada privatized their telecommunications systems, there have been few evaluations of the results of privatization experiences of other countries. These privatizations have not generated enough accessible data in order to be able to study the process of privatization. The United States' experience in deregulation of telecommunications system is not fully applicable since it did not involve the sale of public enterprise, and furthermore, the political system in the U. S. is very different from Turkey. Since the U.K. provided the best match, a case study of the British telecommunications should be very beneficial to see if there are lessons which might be transferred to the Turkish case. However, before such a case study is undertaken it is necessary to first look at in detail each level of development in Turkey.

CHAPTER 3

IDENTIFICATION OF TURKEY'S LEVEL OF DEVELOPMENT AND AN EXAMINATION OF WHETHER IT MEETS THE PREREQUISITES OF PRIVATIZATION

Identification of Turkey's level of development is essential for an understanding of the types of constraints it faces in attempting to privatize its telecommunications system. This chapter attempts to classify the level of development in Turkey on a development continuum. Once a classification of Turkey's development level is made, an analysis is undertaken to see if it meets the essential prerequisites for privatization of this utility.

Comparison of Turkey's Economic Performance over the Last Decade

The level of development in a country determines the types of constraints on privatizations and, therefore, it is important to pinpoint Turkey's position as compared to developing and developed countries. A comparative analysis of macroeconomic indicators was made to determine where Turkey falls on a developing and developed scale. Table 2 shows these results. As can be seen, the average growth rate of LDCs was higher than growth rate of DCs. Turkey's average growth rate was even higher than both of LDCs and

Table 2. Macroeconomic Performance of Turkey in Comparison with Both LDCs and DCs Context

Year	Rate of Growth Real GDP			Unemployment Rate			Inflation (CPI) %			Volume of Exports %		
	LDCs	Dcs	T	LDCs	Dcs	T	LDCs	Dcs	T	LDCs	Dcs	T
1982	2.5	-0.3	4.5	na	7.9	11.7	32.3	7.3	27.0	-4.3	-2.0	25.0
1983	1.5	2.6	3.3	na	8.4	12.1	59.0	5.1	30.5	-0.5	-2.2	0.2
1984	4.3	4.5	5.9	na	7.8	11.8	83.7	5.0	50.3	4.4	10.2	25.0
1985	3.9	3.0	5.1	na	7.7	11.7	110.8	4.4	43.2	1.5	4.8	11.7
1986	4.0	3.0	8.1	na	7.6	10.5	40.7	2.7	29.6	9.6	3.1	-8.1
1987	4.2	.3	7.5	na	7.2	9.5	59.0	3.3	32.0	12.9	4.4	36.0
1988	5.0	4.3	3.6	na	6.6	9.8	139.0	3.6	68.3	9.7	7.7	15.5
1989	3.4	3.3	1.9	na	6.1	10.4	434.9	4.8	68.2	8.3	6.7	-1.3
1990	2.9	2.4	9.2	na	6.0	8.3	400.0	5.5	53.1	5.6	5.4	-15.8
1991	3.5	1.4	1.5	na	6.6	7.1	na	5.5	55.4	3.2	4.0	9.2
Average	3.52	2.85	5.06	na	7.19	11.0	151.0	4.7	45.7	6.3	4.2	9.7

Sources: United Nations, World Economic Survey (1991), State Planning Office (SPO) (1990), State Statistical Institute, in Government Program (1992). Averages and volumes of annual export changes (%) of Turkey are calculations of researcher.

T = Turkey

DCs in the period from 1982 to 1991. The average growth rate of LDCs during this period was 3.51% while DCs grew at 2.85%. Turkey's growth rate, during the same period, averaged 5.06%. Turkey's growth rate, however, fluctuated greatly from year to year, which may indicate that its economy is not mature enough to provide economic stability.

Unemployment in the country is another index of its economic health. Normally LDCs are plagued with high unemployment or underemployment since a large percentage of the population is dependent on agriculture because of the lack of industry. A comparison of Turkey's unemployment rates shows that Turkey's official unemployment statistics are higher than those in developed countries--an average of 11.0% as compared to 7.9% in DCs. Furthermore, it is suspected that the figures of unemployment do not adequately describe the true situation. In Turkey, as in LDCs generally, many unemployed or underemployed agricultural workers are not officially on the unemployment roles. This difference may be vitally important in designating Turkey's position in the world since an estimated 56% of Turkey's workforce still works on farms according to 1990 data. It should be noted, however, that Turkey's unemployment rate had declined significantly since the mid-1980s, reflecting the increased economic growth in the country.

Inflation, a major problem of LDCs, remained still an insurmountable problem during the last 10 years. As can be

seen in Table 2, the yearly average of inflation in LDCs rose to 110.8% in 1985, and then went even more out of control in 1988 through 1990. Even in so-called good years when those countries were more successful in fighting inflation, the yearly rate of inflation never was less than 32.3% in the decade. The overall average for LDCs in the decade was 151.0% which, to a large degree, negates all of their efforts to improve living standards in those countries.

Inflation is much less rampant in developed countries. The highest yearly average in these countries during the last decade was 7.3% in 1982. The overall average for the entire decade was 4.7%.

The pattern of inflation in Turkey differs from both developed and LD countries. The highest yearly average in the last decade was 68.3% in 1988 and the lowest was 27.0% in 1982. The overall inflation average in Turkey during this 10-year period was 45.7%, not as bad as some states, but certainly much greater than any of the developed countries.

Exports are another indicator of the development level of countries. Annual percentage of change in the volume of exports in DCs varied little during the decade. The overall average increase in the volume of exports was 4.2%. Average increase in the volume of exports in LDCs was 6.3% during the same period, but the variance from year to year

was greater than in DCs. Exports soared in Turkey, reaching to the average level of 9.7% for the decade, but it too experienced great fluctuations from year to year. The volume of exports in 1987 reached its peak of 36% but then fell to a -15.8% in 1990.

As a result of the export oriented growth strategy of 1980, the biggest export explosion in Turkey occurred in 1981. The volume of exports was $2.9 billion in 1980. Exports increased 61% in 1981, reaching $4.7 billion. Average export growth between 1980 and 1989 has been 16.6% (State Planning Office, 1990). The export of industrial products has increased from $1 billion in 1980 to $9.1 billion in 1989. During this period the ratio of industrial exports to total exports has increased dramatically from 37% to 74%. In 1992 it is estimated that industrial exports will make up 89% of total exports. The ratio of exports to GNP during this period increased from 5% in 1980 to 14.4% in 1989 (SPO 1990). The ratio of exports to imports increased from 36.8% in 1980 to 73.8% in 1989.

Further comparisons of other macroeconomic indicators, such as per capita income, the share of industrial production in GDP, and the ratio of external debt to GDP are useful for identifying Turkey's economic development level. Table 3 provides these comparisons through selected LDCs and DCs.

Table 3. Other Main Economic Indicators of Selected LDCs and Developed Countries

	Industrial Production 1990	External Debt per capita ($b) 1990	GDP per capita ($b) 1990	External Debt/GDP 1990	Budget Deficit per capita ($b) 1990	Budget Deficit/ GDP 1990	Income per capita ($) 1990
Selected LDCs							
Argentina	30% GDP	60.0	82.7	72.5%	-5.1	6.1%	2,560.0
Bangladesh	10% GDP	20.4	20.4	100.0%	-11.7	8.3%	180.0
Brazil	35% GDP	122.0	388.0	31.4%	-11.7	3.0%	2,540.0
China	40% GDP	516.0	413.0 (1989)	125.0%	na	na	370.0
Egypt	24% GDP	52.0	37.0	140.5%	-4.0	10.8%	700.0
India	25% GDP	69.8	254.0*	27.4%	-20.0	7.8%	300.0
Indonesia	30% GDP	58.5	94.0	62.2%	-6.2	6.5%	490.0
Kenya	17% GDP	5.8	8.5	68.2%	-0.3	3.5%	360.0
Mexico	27% GDP	96.0	236.0	40.6%	-10.9	4.2%	2,680.0
Peru	25% GDP	20.0	19.3	103.6%	-0.8	3.0%	898.0
Rep. of Korea	45% GDP	31.7	238.0*	13.3%	0.0	0.0%	5,600.0
Thailand	27% GDP	26.9	79.0*	34.0%	0.0	0.0%	1,400.0
Tunisia	38% GDP	7.4	10.0	74.0%	-1.1	11.0%	1,235.0
Turkey	32% GDP	42.8	178.0	24.0%	-6.8	3.8%	3,100.0
Average	28.9% GDP	80.7	147.0	65.5%	-6.0	5.2%	1,600.9
Selected DCs							
Denmark	na	45.0	78.0	57.6%**	+2.5	surplus	15,200.0
Finland	28% GDP	5.3	77.3	6.8%	+2.0	surplus	15,500.0
France	26% GDP	59.3	873.5	6.7%	-16.6	2.0%	15,500.0
Germany	***	***	1,152.2	***	***	***	14,600.0
Italy	35% GDP	na	844.7	na	-93.0	11.0%	14,600.0
Japan	30% GDP	na	2,115.2*	na	-33.0	1.5%	17,100.0
Portugal	40% GDP	18.4	57.8	3.1%	-2.2	3.8%	5,580.0
Spain	na	37.0	435.9	8.4%	-11.5	2.6%	11,000.0
Sweden	na	14.1	138.7	10.1%	+3.4	surplus	16,200.0
Switzerland	na	na	126.6	na	+0.2	surplus	18,700.0
Taiwan	na	1.1	150.8*	0.5	--	--	7,380.0
U.K.	na	10.5	858.3	1.2%	-0.5	0.0%	15,000.0
U.S.A.	na	581.0	5,465.0*	10.6%	-166.0	3.0%	21,800.0
Average	31.8% GDP	85.7	954.9	5.9%	-28.6	4.0%	14,473.9

Sources: Central Intelligence Agency, World Fact Book (1991); United Nations, World Economic Survey (1991). Ratio of External Debt and Budget Deficit to GDP are the calculations of the researcher.
*Shows GNP. **Not included in the average calculation because of its excessive characteristic. ***Not exactly known because of its unification with East Germany.

Per capita income is the most frequently used index to classify countries on a developed and developing scale. The share of industrial production in GDP might also give some insight about the development level of a country. Since most LDCs are having undue debt problems, the ratio of external debt to GDP also differentiates between DCs and LDCs. The ratio of budget deficit to GDP is used here only to understand what the budget deficit level is in both differing worlds. The share of industrial production in GDP does not necessarily differentiate between LDCs and DCs. For example, Japan's industrial production is the same as Indonesia's industrial production in GDP (30%) even though the countries differ greatly from one another.

The ratio of external debt to GDP more clearly differentiates between LDCs and DCs. Denmark has the highest ratio of external debt to GDP among DCs (57.6%). Most of the other DCs have a debt to GDP ratio of less than 6%. In Turkey, the ratio of external debt to GDP is 24%. This is the best (lowest) ratio among any other LDCs except the Republic of Korea (13.3%). Turkey's ratio of budget deficit to GDP is 3.8%, a moderate percentage in comparison to the ratio in most other countries. The ratio of budget deficit to GDP is the highest in Italy among DCs (11%) and it is the highest in Tunisia (11%) among LDCs.

On average, external debt, budget deficit and per capita income indices showed that Turkey performed better

than other LDCs in 1990. The ratio of external debt to GDP in LDCs averaged 65.4% while it was 24% in Turkey. In developing world the ratio of budget deficit to GDP averaged 5.2%. This ratio was 3.8% in Turkey during the same year. Average per capita income was $1,600.9 in LDCs while it was $3,100 in Turkey. The same indices showed an entirely different scenario in DCs. The external debt ratio to GDP was 3.9% and per capita income was $14,473.9. In terms of budget deficit Turkey is performing as good as DCs. External debt ratio is, however, much higher in Turkey while per capita income is much less.

Manufacturers' share in total exports is also another index frequently used to measure the development level of countries. Unfortunately, comparable data is not available as to this index. According to the Turkish State Planning Office, however, this ratio was 78% in 1988 while it was 79.7% in South Korea during the same year.

An overview of all the macroeconomic indices shown in Tables 2 and 3 indicate that Turkey has not yet developed to the level of a DC. Even though it is best among the LDCs on these indices, it still ranks as a LDC. With a per capita income of $3,100, it falls just after the Republic of Korea. This is higher than most other LDC but not in the league of the developed countries.

Comparison of Physical Quality of Life Indices

In addition to macroeconomic statistics, indices pertaining to the physical quality of life are frequently used in order to measure the development level of countries on a developed and developing scale. Birth rate, death rate, infant mortality rate, life expectancy, literacy, and distribution of labor force among industrial, service and agricultural sectors also give additional insight about the development level of countries. Table 4 shows these indices.

One of the characteristics of LDCs is a high birth rate, whereas in DCs it is very low. The death rate, however, is higher in DCs than in LDCs, perhaps because the average age of population is older in DCs. Infant mortality reflects the greatest differences between LDCs and DCs. The infant mortality rate is much higher in LDCs. Also, life expectancy differs in the contrasting worlds. People live 5 to 10 years longer in DCs than people do in LDCs. The literacy rate is much higher in DCs.

The make up of the labor force also differs greatly between the two worlds. The percentage of the labor force in the agricultural sector is much less in DCs than in LDCs. In LDCs a large percentage of the workforce works in agriculture because industry and service activities have not developed enough to absorb these workers. In DCs the

Table 4. Physical Life Quality Indices of Selected LDCs and DCs

	Birth Rate (per 1000)	Death Rate (per 1000)	Infant Mortality Rate (Per 1000)	Life Expectancy		Literacy (%)	Distribution for Workforce		
				Male	Female		Industry %	Service %	Agriculture %
Selected LDCs									
Argentina	20.0	9.0	31.0	68.0	74.0	95.0	31.0	57.0	12.0
Bangladesh	16.0	9.0	23.0	70.0	76.0	99.0	22.0	70.0	8.0
Brazil	26.0	7.0	68.0	62.0	68.0	81.0	27.0	42.0	31.0
China	22.0	7.0	33.0	68.0	72.0	73.0	25.0	15.0	60.0
Egypt	33.0	10.0	82.0	60.0	61.0	48.0	20.0	36.0	34.0
India	29.0	10.0	87.0	57.0	59.0	48.0	na	na	67.0
Indonesia	26.0	8.0	73.0	59.0	63.0	77.0	10.0	35.0	55.0
Kenya	45.0	8.0	69.0	60.0	64.0	69.0	na	na	78.0
Mexico	29.0	5.0	29.0	68.0	76.0	87.0	13.0	61.0	26.0
Peru	28.0	8.0	66.0	62.0	67.0	85.0	19.0	44.0	37.0
Rep. of Korea	15.0	6.0	23.0	67.0	73.0	96.0	27.0	52.0	21.0
Thailand	20.0	6.0	37.0	66.0	71.0	93.0	13.0	25.0	62.0
Tunisia	26.0	5.0	38.0	70.0	74.0	65.0	na	na	32.0
Turkey	28.0	6.0	54.0	68.0	72.0	81.0	14.0	30.0	56.0
Average	25.9	7.4	50.9	64.6	69.3	78.4	20.1	42.5	41.4
Selected DCs									
Denmark	12.0	11.0	6.0	73.0	79.0	99.0	20.0	74.0	6.0
Finland	12.0	10.0	6.0	71.0	80.0	100.0	38.0	47.0	15.0
France	14.0	9.0	6.0	74.0	82.0	99.0	31.0	61.0	8.0
Germany	11.0	11.0	7.0	73.0	79.0	99.0	41.0	53.0	6.0
Italy	11.0	10.0	6.0	75.0	82.0	97.0	32.0	58.0	10.0
Japan	10.0	7.0	4.0	76.0	82.0	99.0	33.0	60.0	7.0
Portugal	12.0	10.0	13.0	71.0	78.0	85.0	35.0	45.0	20.0
Spain	11.0	8.0	6.0	75.0	82.0	95.0	24.0	62.0	14.0
Sweden	13.0	11.0	6.0	75.0	81.0	99.0	24.0	62.0	14.0
Switzerland	12.0	9.0	5.0	75.0	83.0	99.0	33.0	60.0	7.0
Taiwan	16.0	5.0	6.0	72.0	78.0	91.0	55.0	29.0	16.0
U.K.	14.0	11.0	7.0	73.0	79.0	99.0	27.0	71.5	1.5
U.S.A.	15.0	9.0	10.0	72.0	79.0	97.0	17.5	79.6	2.9
Average	12.5	9.3	6.8	73.5	80.3	96.8	31.6	58.6	9.8

Source: Tabulated by the researcher from Central Intelligence Agency, The World Fact Book (1991); and John Paxton, The Statesman's Year Book (1990-1991).

labor force in the service sector is much larger, as is the industrial sector.

Turkey again shows the characteristics of an LDC in terms of these indices. The birth rate is high, infant mortality rate is still at an unacceptable level, and life expectancy for men and women is somewhat less than that of DCs. The literacy rate among women lowers the literacy level for the country as women still do not receive the educational attention of males. Seventy percent of females are literate as opposed to 90% of males. The distribution of the labor force also reflects the LDC characteristics of Turkey. As of 1990, 56% of the labor force still works in the agricultural sector, while only 14% work in the industrial sector, and 30% are employed in the service sector. In comparison, in DCs approximately 9.8% of the labor force is employed in the agricultural sector, nearly 58.6% work in the service sector and around 31.6% are industrial workers.

This comparative analysis of the two sets of indices, economic and physical quality of life, demonstrates that Turkey ranks as an LDC country, even though it is one of the best among them. Turkey's economic characteristics display approximately the economic characteristics of the Republic of Korea, even though South Korea exceeds Turkey in some areas of economics and in the quality of life indices.

A high inflation rate and medium per capita income are the most important obstacles facing Turkey. It has outperformed both the LDCs and DCs in terms of growth rate and development of exports in recent years. Industrial products compared to the total volume of exports make up 80% of the country's trade. Official unemployment rates were reduced to the level of DCs' unemployment level in 1991 even though a majority of the people still work in agriculture where unemployment records do not reflect the true situation.

Examination of Turkey's Ability To Meet the Prerequisites for Privatizing Telecommunications

Now that it has been determined that Turkey is generally more akin to LDCs in terms of most economic and social indicators, questions remain as to whether it meets the prerequisites for privatizing a utility such as the telecommunications system. Is there a sufficient capital market in Turkey? Is the private sector strong enough to take over these tasks of the public sector? Has Turkey reached the goal of having a universal telephone service level throughout the country? Are there adequate skillful public officials to oversee the privatization efforts? Does adequate managerial entrepreneurship exist in the country? Is the level of the technological base at a sufficiently high level to ensure continued development? Has a

regulatory body been established? Can the threats of MNCs be prevented from injuring the sovereignty of the country after the privatization of telecommunications? All of these questions need to be analyzed and answered before a decision is made.

Capital Markets

An examination is first made to see if Turkey has a capital market capable of effectively meeting the capital needs caused by the privatization of the telecommunications system and other SOEs. The Istanbul Stock Exchange (I.S.E.) was officially activated only in January 1986. Until the middle of 1987 there was no significant activity in I.S.E. because Turkish people knew little about stock exchanges and investors did not turn to the new system. Some improvements in the Turkish capital market were made after mid-1987 as a result of the support of the banking community and media. However, until 1989 the I.S.E. continued to be called a "sleeping bourse."

Activity of the stock exchange reached unprecedented levels after August 1989 (Keller 1989). Carefully designed state legislation, known as "Decree 32," passed in August 1989, played a very significant role in the increased use of the stock exchange. The legislation removed all remaining restrictions on foreign, institutional, and individual investments in equities and other securities listed on the

Istanbul Stock Exchange (Keller 1989). It authorized the purchase of foreign securities by Turks and permitted foreigners to trade in Turkish securities listed on the Istanbul Stock Exchange. Turkey's capital market has improved and established an efficient infrastructure for business since Decree 32 was enacted (Keller 1989).

Development of the market has been very rapid since these new conditions were enacted. The I.S.E. has attracted a great deal of money for capital investment which even the Gulf war has hardly reduced (Dugan 1990). Turks have made the switch in record time from traditionally secure investments--gold and foreign exchange--to the roller-coaster world of the stock market (Dugan 1990). Investments in equities are encouraged since profit-to-equity ratios are often as much as 17 to 20 times. Other foreign investment institutions also are beginning to look closely at investment opportunities in Turkey, including Nomura, one of the larger Japanese investment houses, as well as several European investment organizations. The Turkish business community wants to support the new capital market system because they believe that it has tremendous advantages if it develops (Timewell 1990).

Successful operation of the Istanbul Stock Exchange helped many of the family-owned Turkish companies to increase their capital base by publicly selling equities in the market. The Turkish private sector quickly realized

that the I.S.E. was an alternative source of capital funds. The privatization movement in Turkey, however, has seriously challenged the country's new stock exchange. As more and more SOEs have been privatized the state agency responsible for selling these facilities, the PPA, has exceeded the country's ability to absorb all of the stock issues. This flooding of the exchange with new stock issues has had a negative impact on its operations and affected the prices of individual stocks. Without a plan to time these governmental issuances of new stock, the I.S.E. cannot at present absorb the full needs for private capital in the country, even though it has grown greatly in recent years.

As shown in Table 5, the volume on the I.S.E. has increased from $11.5 million in 1986 to $3,828.1 million in 1992 since its establishment and shows the significant impact of Decree 32. Average daily trading volume has increased from zero to $46.1 million during the same period. Total nominal capital at all listed companies increased from $1,054.1 million to $5,694.6 million. Total nominal capital of companies whose equities are traded on the I.S.E. has increased from $388.5 million to $3,704.0 million. Their total market capitalization has increased from $938.9 million to $10,402.1 million during the related period. If the same trends continue, all of the indicators for 1992 are likely to exceed the 1991 levels.

Table 5. Main Indicators of I.S.E. Market

Year	Trading Volume ($ million)	Average Daily Trading Value ($ million)	Total Nominal Capital at All Listed Companies ($ million)	Companies Whose Equities are Traded at I.S.E.	
				Total Nominal Capital ($ million)	Total Market Capitalization ($ million)
1986	11.5	0.0	1,054.1	388.5	938.9
1987	106.3	0.4	1,628.4	461.4	3,210.3
1988	83.0	0.3	1,745.0	463.5	1,141.1
1989	751.6	2.9	2,912.5	1,146.9	6,726.1
1990	5,226.1	21.0	4,940.4	3,425.4	18,852.6
1991	8,314.4	33.7	6,359.2	4,426.6	15,533.2
1992*	3,828.1	46.1	5,694.6	3,704.0	10,402.1

*This represents only 4 months of the year.
Source: I.S.E. in Capital Market Board Monthly Bulletin, April 1992.

From a comparative perspective, the Turkish Stock Exchange Market is performing better than markets in such other countries as Greece (Athens) and Portugal (Lisbon) as of 1991. As can be seen in Table 6, the I.S.E.'s market capitalization of native companies grew faster than the markets for both Greece and Portugal over the last six years. It might, however, be difficult to interpret these numbers comparatively. Unfortunately, data are not available as to the ratio of market capitalization of native companies to total capitalization. As shown in Figure 3, in terms of percentage change (growth rate) in trading volume during the period of 1986 and 1991, I.S.E. has been the

Table 6. Market Capitalization of Native Companies in Selected Stock Exchange Markets
(Million $)

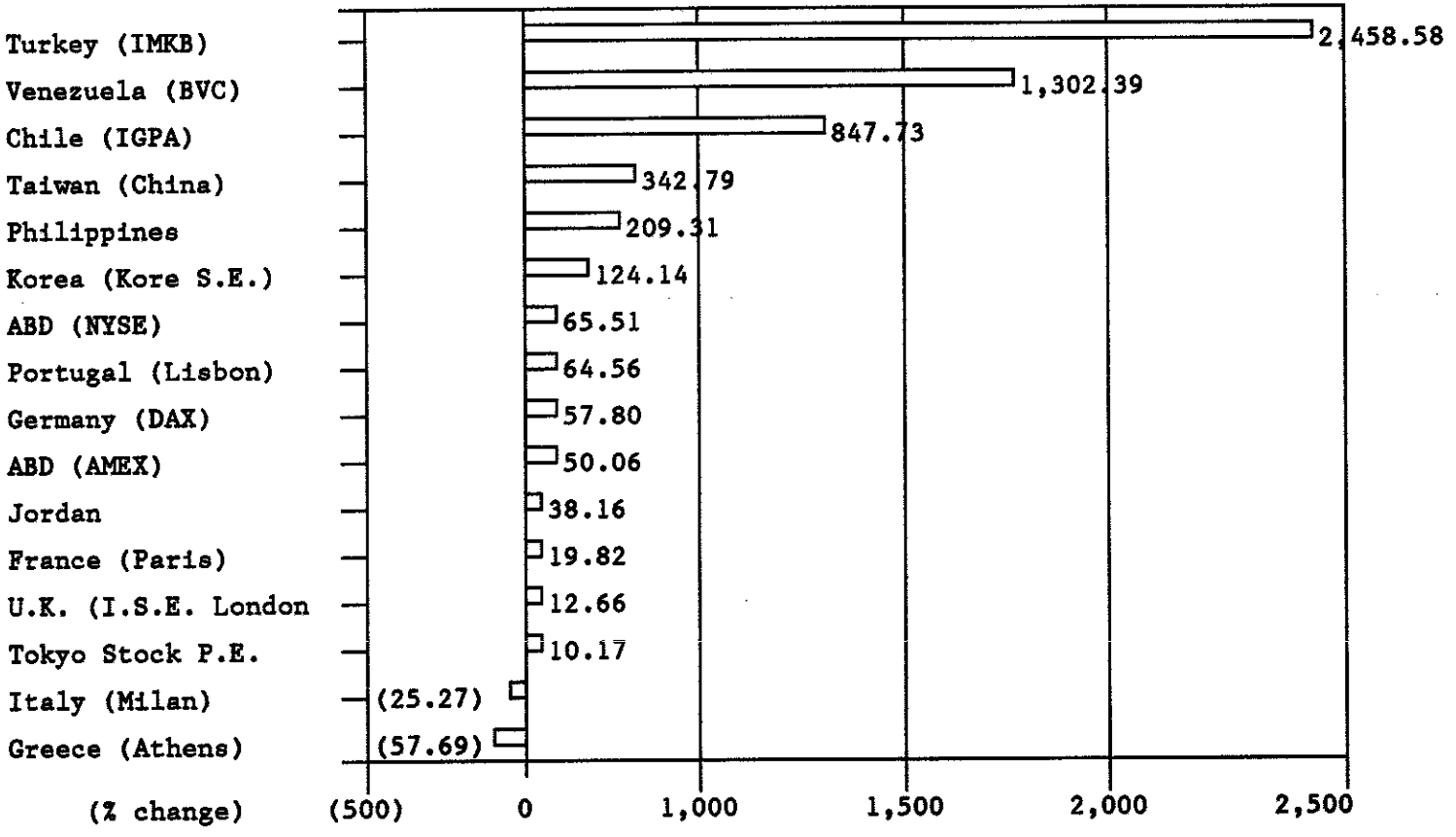
	1987	1988	1989	1990	1991
U.S.A.					
New York Stock Exchange	2,132,158.0	2,903,546.0	2,692,123.0	2,692,123.0	3,352,401,0*
American Stock Exchange	67,009.6	92,387.6	104,325.0	104,325.0	
Japan					
Tokyo	2,726,369.3	3,789,033.0	4,260,382.5	2,821,660.1	3,005,697.4
Osaka	2,348,398.7	3,298,906.4	3,601,122.2	2,389,005.5	2,508,092.1
France (Paris)	155,578.4	229,892.6	337,572.2	304,390.1	358,193.5
Germany (Total)	218,463.5	250,867.0	349,489.0	355,310.8	370,610.2
Italy (Milan)	120,346.4	135,416.6	169,416.7	148,675.5	154,031.1
United Kingdom (London)	679,711.6	711,527.1	814,320.6	858,165.3	1,021,424.1*
India (Bombay) (1)	14,480.0	23,845.0	27,316.0	38,567.0	38,649.0
Republic of Korea (1)	32,905.0	94,238.0	140,946.0	110,594.0	96,373.0
Greece (Athens) (1)	4,464.0	4,285.0	6,376.0	15,228.0	11,118.0
Portugal (Lisbon) (1)	8,857.0	7,172.0	10,618.0	9,201.0	9,616.0
Brazil					
Rio de Janeiro	16,877.5	30,772.1	44,181.2	15,371.4	43,112.7
Sao Paulo	16,821.8	30,865.1	44,141.1	14,782.3	29,459.4*
Turkey					
I.S.E.	3,210.3	1,141.1	6,726.1	18,852.6	15,533.2

* As of October

(1) Total Market Capitalization

Source: FIBV Statistics, IFC Quarterly Review, Emerging Stock Markets Factbook, in H. Oguz Altun, Capital Market Board Research Report, March 1992.

Figure 3. Performance of World Stock Exchanges between 1986-1991 as Percentage of Change in Trading Volume



Source: H. Oguz Altun, Capital Market Board Research Report, March 1992.

first performer in the world among any other stock exchange markets. The number of companies listed on the I.S.E. has grown faster and exceeded the number of companies listed on the markets of such other countries as Brazil (Rio de Janeiro and Sao Paulo), Portugal (Lisbon), Greece (Athens), Korea, Italy (Milan), Germany (total), and France (Paris) (see Table 7). The explanation for this rapid increase in the number of companies listed on the I.S.E. may relate to the size of companies and the requirement for listing on the stock exchanges. Presumably, the size of Turkish companies listed on the I.S.E. may be much smaller than companies listed on French and German markets. The companies which sell 15% of their shares can be listed on the I.S.E. Also, corporate tax is reduced from 46% to 30% if they sell 80% of their shares (The Delights of Turkish Privatization 1987).

The number of listed companies in the I.S.E. also grew faster than in any other stock markets in the world during the period of 1987 and 1991. Growth rate of the number of listed companies in the I.S.E. was 34.3% in 1988. It gradually declined to 31.2% in 1989, 25.4% in 1990, and 19.2% in 1991. These growth rates did not take place in any other capital market between 1987 and 1991. This drastic growth rate, however, might partially be attributed to the young age of the I.S.E.

The I.S.E. was strengthened and has matured as a result of recent legislation in April 1992. The aim of this

Table 7. The Number of Listed Companies in Selected Stock Exchange Markets

	1987		1988		1989		1990		1991	
	Number	Change (%)*	Number	Change (%)*	Number	Change (%)*	Number	Change (%)*	Number	Change (%)*
U.S.A.										
New York Stock Exchange	1,647	2.06	1,681	2.32	1,720	3.14	1,774	n.a.	n.a.	--
American Stock Exchange	866	3.35	895	-3.91	860	-0.12	859	n.a.	n.a.	--
Japan										
Tokyo	1,620	3.89	1,683	1.96	1,716	2.10	1,752	n.a.	n.a.	--
Osaka	1,070	1.96	1,091	2.38	1,117	1.88	1,138	n.a.	n.a.	--
France (Paris)	683	-1.02	676	1.33	685	-2.34	669	17.34	785	--
Germany (Total)	983	10.17	1,083	-40.81	641	0.94	647	2.32	662	--
Italy (Milan)	204	3.43	211	2.84	217	1.38	220	2.27	225	--
United Kingdom (London)	2,658	-2.93	2,580	-0.81	2,559	0.00	2,559	-2.97	2,483	--
India (Bombay)	2,095	6.92	2,240	6.70	2,390	1.59	2,428	4.61	2,540	--
Republic of Korea	389	29.05	502	24.70	626	6.87	669	2.69	687	--
Greece (Athens)	116	2.59	119	0.00	119	13.45	135	-5.19	128	--
Portugal (Lisbon)	143	19.58	171	6.43	182	-1.10	180	-2.78	175	--
Brazil										
Rio de Janeiro	648	-2.78	630	-0.16	629	-2.70	612	n.a.	n.a.	--
Sao Paulo	590	-0.17	589	0.51	592	-2.20	579	-1.90	568	--
Turkey										
I.S.E.	414	34.30	556	31.29	730	25.48	916	19.21	1,092	--

Source: FIBV Statistics, IFC Quarterly Review, Emerging Stock Markets Fact Book 1991, in H. Oguz Altun, Capital Market Board Research Report, March 1992.

*Percentage changes are from the preceding year and the calculations of researcher.

legislation was to make the Turkish financial structure compatible with world standards so that Turkish equities could be sold world-wide. This move greatly enlarges its potential of attracting new capital for development. Despite these improvements, it is not certain if the capital market in Turkey can expand enough to handle the large number of new stock issues being created by privatization.

The impact of "decree 32" on the performance of the I.S.E. indicates that foreign investment has a significant share in the Turkish capital market. This leads to a conclusion that native capital involvement in the I.S.E. is still weak. Another critical problem of the I.S.E. is that the Turkish private sector involvement in capital market activities has been very slow, since most of the growth is, so far, the result of SOE privatizations in the country. With strong foreign investment and public sector involvement in the capital market, it is difficult to say that the native private sector and capital can support large privatization issues in the I.S.E.

Strength of the Private Sector in Turkey

A liberalized, competitive, free market economy requires an environment of less government and more individual responsibility and involvement in economic activities (Molz 1989). In order to appraise the strength of the private sector in Turkey, three criteria were used

here: the share of the private sector in the total investments in the country, the stock share of the private sector in the total capital market, and the share of the private sector in the production of industrial goods in Turkey. Table 8 indicates the ratios of private and public sector investments to GNP in the country.

Table 8. The Ratio of Total Private and Public Sector Investment to GNP in Turkey (Percentages)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total investment	21.9	21.9	17.7	19.8	19.3	20.8	24.4	25.4	24.0	21.7
Private sector	10.7	9.1	8.1	9.8	9.6	9.4	11.1	12.1	13.0	12.5
Public sector	11.2	12.8	9.5	10.1	9.7	11.4	13.4	13.3	11.0	9.2

Source: SPO (1990)

As indicated in Table 8, during the period of 1980 and 1989 the ratio of total investment to GNP has remained at the same level during years of growth of the GNP. The ratio of total investment to GNP was 21.9% in 1980 and 21.7% in 1989. The share of private sector investment in total GNP increased from 10.7% in 1980 to 12.5% in 1989. Public sector investment in total GNP declined from 11.2% in 1980 to 9.2% in 1989. In conjunction with the liberalization efforts of the 1980s, the Turkish government is attempting to leave matters of the economy to the private sector.

Plans for privatization of SOEs in the future are intended to increase the share of the private sector investment.

The share of securities of privately created companies was 25.5% of the total number at I.S.E. in 1986, as shown in Table 9. The percentage of privately issued stock gradually increased during 1986 and 1991 period and reached the level of 43.5% in 1986 while the percentage of securities created as a result of governmental sales of SOEs decreased from 74.5% in 1986 to 56.5% in 1991, indicating an increasing rate of creation of privately owned companies. Average growth rate of the private sector share in the capital market has been around 5% during the period of 1986 and 1991. If the same trends continue, the share of the private sector is expected to approach 50% at the end of 1992, and will exceed the public sector's share in 1993. The data for 1992 shows only the share of private and public sector as of April 1992.

The third criteria to appraise the strength of the private sector to accept privatization was the private sector's share in the production of industrial goods. Although the private sector's investment share in GNP and in the capital market is increasing, its share of industrial production has decreased very sharply since 1981, reflecting the privatization movement and government's greater involvement in industrial production.

Table 9. The Share of Private and Public Sector Securities in I.S.E. ($ Billion and %)

	1986	1987	1988	1989	1990	1991	1992-93**
Private sector securities	$1.2 25.5%	$2.1 28.1%	$2.1 34.4%	$3.5 33.9%	$5.5 38.7%	$6.8 43.5%	$6.2 40.1%
Public sector securities*	$4.1 74.5%	$5.3 71.9%	$4.6 68.6%	$6.7 66.1%	$8.7 61.3%	$8.8 56.5%	$9.2 59.9%
Total	$5.3 100%	$7.4 100%	$6.7 100%	$10.2 100%	$14.2 100%	$15.6 100%	$15.3 100%

*The securities from SOEs are being sold. **Represents only the first 4 months of the year.
Source: Capital Market Board, Monthly Bulletin. April 1992.

The private sector share in the industrial production of Turkey was 37.8% in 1981 but decreased to 21.8% in 1989. This is not a good sign to liberalization and privatization efforts of Turkey since it indicates the inability of the private sector to generate growth in industrial production. This is also a warning sign for privatization planning of the telecommunications system.

Consideration these three indicators indicates possible problems. The Turkish private sector does not yet seem to have the growth momentum to absorb such a large transfer of public business to the private sector.

At the present time private sector share has not reached the level of public sector share in the I.S.E. and

Table 10. Private and Public Sector Share in Total Industrial Production (%)

	1981	1982	1983	1984	1985	1986	1987	1988	1989
Private sector	37.8	36.3	34.9	34.1	33.4	32.7	26.4	25.3	21.8
Public sector	62.2	63.7	65.1	65.9	66.6	67.3	73.6	74.7	78.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: SPO (1990).

the level of foreign investment is not known. The impact of "decree 32" on the performance of the I.S.E. indicated that native private sector and capital are still weak in the country. Another negative aspect about the strength of private sector in Turkey is the rapidly declining share of the private sector in total industrial production. The very slow increase in the private sector share in total investment in Turkey suggests that the private sector cannot properly support the privatization of a large telecommunications industry.

Universal Service

Another of the important constraints a country needs to consider before privatizing a utility is that universal service is guaranteed to all sectors of the society at a reasonable cost. For instance, by the time of AT&T's deregulation in the United States in 1983 and Britain's privatization of BT in 1984, telephone service reached 91%

of households in the U.S.A. and 78% of the households in the U.K. (Hills 1989). In Turkey, telephone service at present serves approximately 65% of the households, and large sections of rural areas need some additional service. A percentage of households using telephone was used to determine if Turkey meets the universal service requirement (Hills 1989).

While most industrialized countries have achieved universal service and are now free to focus their resources elsewhere, developing countries typically lag further behind (Ambrose, Hennemeyer, and Chapel 1990). In order to improve economic conditions of LDCs an efficient information infrastructure is critical to stimulate competition and attract foreign capital. Consequently, the needs of the business sector must compete with the objective of universal service for limited resources (Ambrose, Hennemeyer, and Chapel 1990).

The Turkish PTT has been struggling in order to accomplish multiple objectives of the organization such as obtaining a high technological level, near universal service level, and meeting the needs of business community. As Table 11 indicates, over the last decade the number of villages with telephones has increased from 8,431 in 1982 to 42,811 in 1991. The total number of villages in Turkey is slightly above 40,000 and most have telephone facilities.

Table 11. The Number of Subscribers and Villages Using Telephones Over the Last Decade

Year	Number of Subscribers	% Change	Number of Villages
1982	1,502,000	--	8,431
1983	1,673,227	11.4	10,272
1984	1,941,088	16.0	12,166
1985	2,247,884	15.8	16,000
1986	2,779,980	23.7	24,175
1987	3,701,973	33.1	36,442
1988	4,920,757	33.0	37,267
1989	5,572,980	13.2	37,664
1990	6,893,267	23.7	41,249
1991	8,147,438	18.1	42,811
		Average 21.6	

Source: SPO (1990); Government Program 1991 and 1992. Percentages are the calculations of the researcher.

Data indicate that the Turkish governments have been able to bring telephone services to the settlement areas which have as few as two or three houses. These dwellings are called "Mezra." The number of telephone subscribers has increased an average of 21.6% per annum during the period of 1982 to 1991. The most successful years for PTT have been 1987 and 1988 in which the number of telephone subscribers has increased 33% per annum. In 1991 the number of telephone subscribers was 8,147,438. The government target for 1992 is 9,275,000. Data are not available about percentages of households with telephones. However, the population of Turkey is around 60 million. If we assume that each household has five members, universal service level in

Turkey as of 1992 is near 80%. If average household size is around four persons, then universal service level becomes around 67%. Inclusion of business subscribers, however, reduces this figure. As a result, universal service level in Turkey probably is approximately 15% below the level of the U.K. when it privatized its telecommunications system. Based on successful operations of PTT, it is expected that Turkey can meet the universal service requirements within a few years.

Technological Base

There are countries which are still using manual exchanges and electromechanical technology of the 1960s rather than digital technology of the 1980s. Manual exchanges and electromechanical technology are not compatible with world standards in the field of telecommunications. Most industrialized advanced countries are now using digital technology in their telecommunications systems. Technological deficiency severely hurts the enterprise either as publicly or privately owned and operated (Molz 1989). With old technology, privatization of telecommunications systems in LDCs poses a two-pronged problem. First, the private sector cannot compete with old technology. Furthermore, updating and modernizing a telecommunications system requires a large amount of capital investment far beyond the capability of native private

industries. If an LDC privatizes before it has reached an adequate technological level, it is apt to fall into the vicious circle of underdevelopment in this field. As a result, no LDC should consider privatizing its telecommunications systems without reaching a technological level compatible with world standards.

Turkey, however, converted its electromechanical technology to digital technology between 1982 and 1988. The country is about to launch its own telecommunications satellite and is expanding its paging and cellular system. Consequently, Turkey would appear to have the necessary technological base for privatization.

Threats of MNCs

MNCs which have increasing power, but little loyalty to individual countries, have flourished in recent decades. This phenomenon at times has threatened nation states' sovereignty. Control over telecommunication is an especially sensitive and vital area for nations, and privatization of this industry may create disruptive controversies.

National sovereignty--or specifically the erosion of state power--emerges as a very important policy issue when government considers privatization of telecommunications. According to two scholars on privatization, Dordrick and Neubauer, the real motive for privatization of

telecommunications systems is not to enhance service but rather to benefit the worldwide MNCs in the field (Irwin and Merenda 1989). Once privatized it is increasingly difficult for nation-states to impose taxes, control capital flows, or to regulate economic activities over the longer term (Irwin and Merenda 1989). MNCs are very powerful and talented in circumventing government rules, regulations, taxes, capital restrictions, and increasingly they play a larger role in the nation's policy process (Irwin and Merenda 1989). As a result, erosion of state control over MNCs may occur after privatization of telecommunications systems and should be considered before the decision is made to privatize.

The argument about the impact of MNCs on nation-state sovereignty is now underway in Turkey. Experiences from other countries may be valuable in making this decision. In the U.S., foreign ownership of telecommunications is limited to under 25% and in the U.K. it is limited to 49%. Whether privatization of telecommunications harms nation-states sovereignty needs further study, and experience from other countries should be considered carefully.

Adequacy of Skillful Public Officials

In 1986 the government established the Public Housing and Public Participation Administration (PHPPA) under law 3291. The Council of Public Housing and Public Participation Administration was empowered to make and

implement decisions pertaining to the privatization of SOEs. The following year, however, the council of PHPPA was abolished and its duties given to the State Planning Office. In the reorganization PHPPA was divided into two organizations, Public Housing Administration and Public Participation Administration (PPA). The authority and responsibility of implementing privatization decisions was placed on the PPA. A new council, the Public Participation High Council (PPHC), heads this organization and was authorized to make decisions about privatization of SOEs. More than 40 SOEs have been privatized by the PPA since its creation. Seventy-three joint ventures also have been undertaken between public and private companies involving the transfers of partial ownership of SOEs (Government Program 1992). The present coalition government is committed to an even larger privatization program. All of these developments require an increasing number of skillful public administrators as well as many more private managerial personnel.

Privatization of SOEs also creates a greater demand for an improved infrastructure, such as roads, bridges, dams, etc. The PPA not only has responsibility for making and implementing decisions on privatization, but also manages the public participation fund, and finances major infrastructure projects (PPA 1992). Funds from the fuel consumption tax, toll revenues generated by bridges and

highways, operating revenues from dams, water facilities, free trade zones, as well as income from privatization, revenue sharing notes, and foreign credits are under the control of PPA. Public Participation Fund (PPF) is financing more than 1,000 miles of highways, and has financed 21 dams and fourteen major potable water facilities (PPA 1992).

Currently 170 people are employed by PPA. Many of the top managers in this organization hold advanced degrees from the U.S.A. and did not come up through the ranks of the traditional bureaucratic system. PPA was conceived as an instrument for replacing the traditional patrimonial bureaucracy with a managerial bureaucracy capable of privatizing government enterprises (Onis 1991). The very fact that the government felt that it was necessary to go outside its normal personnel system to implement the program of privatization points out the difficulty of implementing such radical changes in the economy with traditional oriented personnel. Despite the difficulty of the task, PPA has successfully privatized numerous SOEs and has undertaken many additions to the nation's infrastructure.

Managerial Entrepreneurship

The process of changing SOEs into privately owned companies requires managers to possess entrepreneurial skills normally not possessed by governmental managers

especially in LDCs. Most managers in LDCs, as Molz (1989) points out, are accustomed to working in politicized bureaucracy and lack entrepreneurial skills. The lack of experience and skills needed to lead business enterprises in a free market is a serious challenge to LDC countries.

Molz's contention on this issue, however, is not always true. The entrepreneurial spirit and risk-taking attitudes of public managers are greatly influenced by their economic and political environment, and differ from place to place. Like any other developed countries, in some LDCs there are governmental managers who have the entrepreneurial skills and risk-taking attitudes.

In Turkey for instance the administration of the PTT has already shown that its managers possess many of these required skills by successfully transferring modern technology from several other countries such as Canada and Belgium. It has carved an ambitious program to move the country's telecommunications system to a technological level higher than many other European countries. It functions as a commercially-oriented state economic enterprise which receives no aid from the government. In fact, it contributes a share of its earnings regularly to the government. Its board is responsible for all major policy decisions, purchases and senior staff appointments, and it operates similarly to a private enterprise. It has

political autonomy and does not act as a politicized bureaucracy.

In the U.K., just before privatization of the BT, the government appointed new board members with a wide range of business experience, to change the organizational, managerial structure and culture. Most of these members were from the banking or business community, with some having experience in the communications industry. The mid-level managerial and technical staff of the SOE were all retained at the privatized BT. Additional managers and accountants with business experience and talents were recruited to buttress this area of management.

The practices followed in the U.K. are possible in Turkey although they have not yet been followed. Board members and managers with business experience from the banking and business community are available in Turkey and could be appointed if the government decides to embark on privatization of the Turkish telecommunications system.

Regulation

A well-designed regulatory system does not exist in Turkey. The country has no laws or history dealing with privately owned public utilities. Without a regulatory regime and an effective regulatory body, privatization of telecommunications system presents serious challenges.

Since competition is absent in the case of public utilities, lack of regulatory laws and an agency to enforce them can result in monopoly prices and poor services. The public interest can be protected only through a regulatory system. No country should risk the well being of its people by privatizing public utilities before development of an effective regulatory system.

Unique Characteristics of Turkey

Should LDCs privatize their telecommunications systems, they would be better off according to Lerner (1990). His reasonings in favor of privatizing telecommunications systems in LDCs do not exist in Turkey. According to him, limited and poor telecommunications services in LDCs are caused by lack of financial autonomy, absence of incentives for efficient operations and planning, inability of management to attract and return highly qualified personnel, political influence on pricing and service decisions, lack of access to capital markets and interference of political leaders. In Turkey, however, the highest authority in the PTT general directorate is the board of directors. The board is responsible for all major policy decisions, purchases, and senior staff appointments. Financial autonomy, management authority, and political independence do exist in the Turkish telecommunications system, and,

therefore, generalizations about LDCs do not necessarily apply to the Turkish case.

Ultimately the question of whether to privatize the telecommunications in Turkey is a political question. My purpose here is to assist decision makers by pointing up various ramifications which need to be considered. All macroeconomic indicators except high inflation rates indicate that Turkey meets the basic prerequisites needed for a successful transfer of this industry to the private sector. Consideration of other societal and institutional requirements of successful privatizations, however, indicate that there are serious impediments facing Turkey. The continued weakness of the private sector in total industrial production and the economy generally bodes poorly for a successful privatization of the telecommunications system. Even more serious perhaps is the lack of a regulatory regime which is essential for the protection of the public interest after privatization. These weaknesses point up the importance of considering experiences of successful privatizations, such as the one in Great Britain.

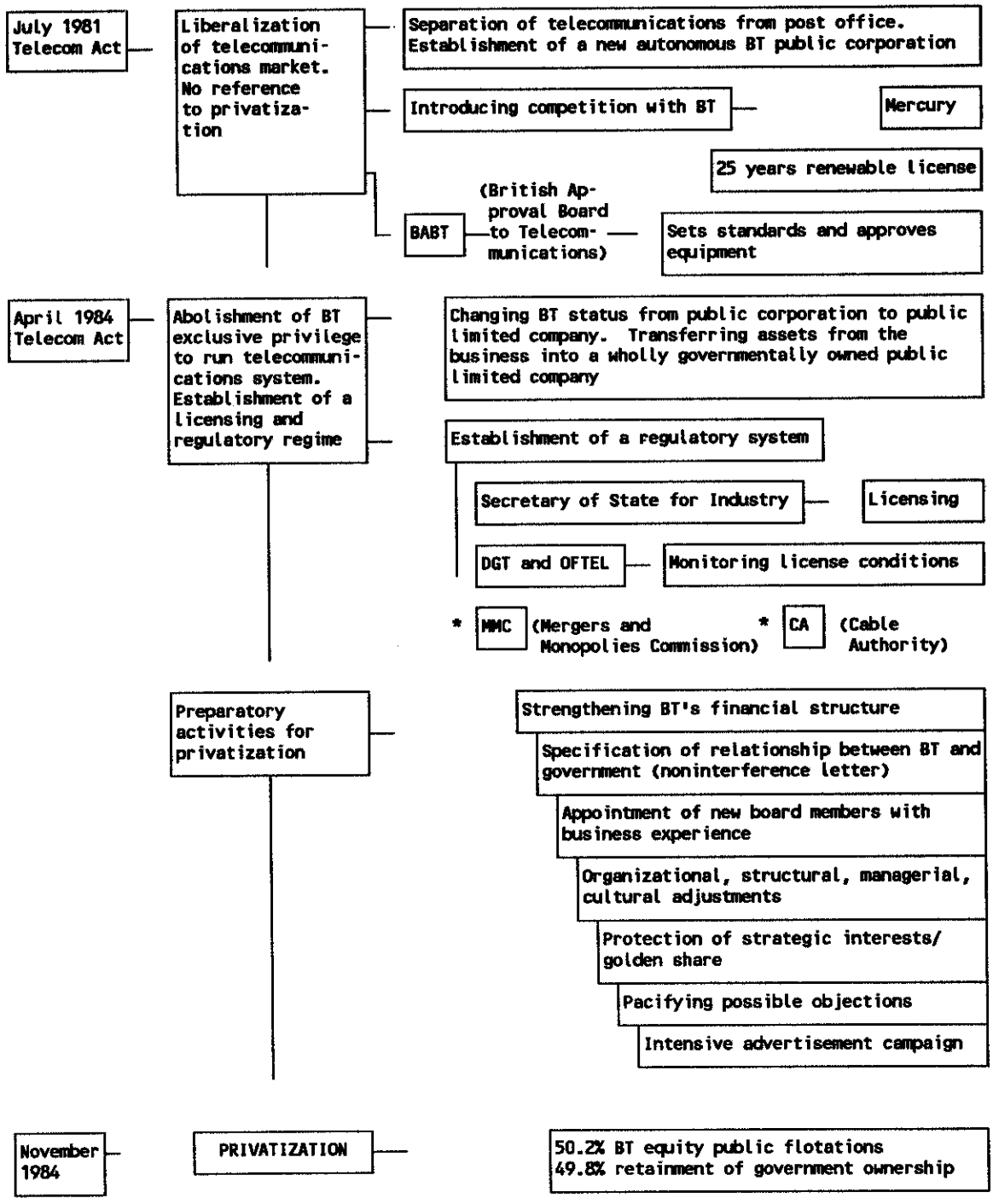
CHAPTER 4

CASE STUDY OF THE PRIVATIZATION OF THE BRITISH TELECOMMUNICATIONS: MODEL OF STEPS IN THE PROCESS

The following case study of British Telecommunications (BT) privatization was undertaken in order to see what may be learned and transferred from their experience for Turkish proposals. The British Telecommunications is the dominant supplier of telecommunications services in the U.K. Until 1981 telecommunications activity was the responsibility of the Post Office, a state-owned monopoly, operated as a governmental agency. The Telecommunications Act of 1981 separated telecommunications from the postal services, and established BT as an autonomous public corporation. In 1984 the British government again changed BT's status from a public corporation to a public limited company with 50.2% of its stocks in private hands, while the government retained 49.8% control. The privatization phases of BT are depicted as a model in Figure 4 and these processes are explained in the text of this chapter.

The convergence of computing and telecommunications in advanced industrialized countries and the emergence of telecommunications as a vital factor in the installation and

Figure 4. The BT Privatization Model



Source: Researcher's own design derived from Newman (1986); Vickers and Yarrow (1989); Pirie (1987); and King (1986).
*These two organizations were not established by the Telecommunications Act of 1984.

utilization of computers (Pitt 1990) was a main impetus behind the liberalization process which began in 1981. Possibility of lucrative business opportunities in domestic and overseas markets in telecommunications led the business community to urge the government to separate the labor intensive postal services from the capital intensive telecommunications services.

During the early stage of privatization the telecommunications market was liberalized and limited competition in the telecommunications systems was introduced by the authorization of a new competitive telecommunications company, Mercury. The Telecommunications Act of 1981 did not mention privatization at this time. No regulatory body or system was introduced by the British government; instead, BT's monopoly of the supply, installation and maintenance of equipment (other than the subscriber's first telephone) was ended with the authorization of a competitor (Steel and Heald 1986). This early stage of privatization of BT system can be named the limited competition and liberalization in the field of telecommunications.

The 1981 act removed BT's statuary monopoly in the network equipment market and endowed the Secretary of State with powers to license competitors (Newman 1986). The act also established an independent board, the British Approvals Board to Telecommunications (BABT), to set standards and approve equipment. The British government chose Mercury as

the first and only competitor until 1990 to operate the national and international digital network. Mercury obtained its license in 1982 for a period of 25 years.

After liberalization of the telecommunications market, the British government's strategy changed radically, favoring complete privatization. A bill was introduced to privatize BT in November 1982 but, with an election occurring in May 1983, failed to pass upon dissolution of the parliament. After the election returned the conservative leadership this bill was reintroduced and enacted in April of 1984 (Newman 1986).

The government's support for privatization of BT rested upon their belief in the market and that it would promote consumer choice, and improve efficiency and higher quality of service. Nationalization, according to the government, had been detrimental to efficient use of capital resources (Newman 1986). The economic objectives of privatization were to reduce the size of the government in the economy by selling off state assets and thus freeing the government from the financial responsibilities of borrowing capital to support its growth. As a private firm, telecommunications would resort to capital markets for capital rather than to government. Furthermore, it was argued that privatization would free the telecommunications company from political pressures. Instead it would be subject to free market discipline and answerable to investors, not to politicians

(Tsoi and Philip 1988). This in turn, according to the conservatives, would improve efficiency of the enterprise and widen ownership. Furthermore, privatization would permit BT to seek out the much more lucrative international markets, rather than focusing entirely on domestic services as the governmentally operated industry had done.

There were two possible patterns for privatization considered by the British government. One was to change the anticompetitive character of BT by breaking up the company into competitive components similar to the American AT&T model. The second pattern called for privatizations of BT as a single unit with the establishment of a regulatory system to protect the public interest in its operation.

It was believed that the scope of competition in the field of telecommunications was restricted, so the government decided to privatize BT as a single unit and to establish a regulatory system to restrain possible monopoly exploitation (Rudd 1988). Some scholars argued, however, that changing technology has expanded the boundaries of the telecommunications industry and blurred the distinction between communications and information processing (Sharkey 1982). As a result, according to Sharkey, the telecommunications industry is no longer a natural monopoly and competition is possible within the newly emerging telecommunications industry. One of the distinguished economic advisors of the British government, Professor

Beesley, was so impressed by the potential for competition and innovation within the industry, that he recommended that the government permit unrestricted competition in the field (Vickers and Yarrow 1989). The government-operated BT, however, resisted opening the field to full competition. BT prepared its own legislation and pursued strategies to protect its position against competitors. BT objectives according to Vickers and Yarrow (1989) were to avoid breaking up BT, to minimize competition in the field, and to prevent a tight regulation against it.

The chairman of British Telecommunications, Sir George Jefferson, lobbied and attempted to convince members of the Parliament that breaking BT into separate competitive companies would lead to a "balkanization" policy and would diminish the ability of BT to compete in the international market against the giant multinational corporations (Pitt 1990). As a result of his intensive efforts, the British government decided to privatize BT as one single entity. Consequently, the choice of protecting and promoting consumers' interests through competition was rejected, and instead a regulatory regime was established to regulate the newly established private monopoly in telecommunications.

The Telecommunications Act of 1984 abolished BT's exclusive privilege to run telecommunications systems and established a licensing and regulatory regime. BT became a public limited company after the passage of the 1984 act

with the government retaining a minority interest of 49% (Newman 1986). BT was the only dominant operator in the telecommunications equipment market and network operation. Mercury, the telecommunications company authorized in 1981, was chosen to be the sole competitor, but it in reality had very little ability to compete with BT because of size. Consequently, establishment of a regulatory regime was the only strategy to exert control over the monopolistic tendencies of the privatized BT.

The form and degree of regulation was another hotly debated issue. Overregulation, the government feared, would jeopardize the price and sale of the BT equities in the capital market, while underregulation might lead to poor service, consumer complaints, and excessive charges. The Telecommunications Act of 1984 placed regulatory responsibility under the Secretary of State for Industry and the Director General for Telecommunications (DGT). A regulatory body was also created. Privatization replaced state ownership but there was a group of regulatory agencies and provisions that served as watchdogs charged with protecting consumers' service and prices (Veljanovski 1991).

Agencies of the British Regulatory System

The Secretary of State for Industry, a ministerial department, was endowed with the power to license telecommunications companies and enforcement of licensing

conditions became the responsibility of the DGT and his office (OFTEL) (Newman 1986). The British Approvals Board of Telecommunications had already been established by the Telecommunications Act of 1981 to set standards for telecommunications equipment. Other governmental agencies with responsibility over some aspects of telecommunications business include the Monopolies and Mergers Commission (MMC) and the Cable Authority (CA). The responsibility of each of these governmental agencies is next considered.

Secretary of State for Industry

Promoting the interests of consumers, purchasers and other users, ensuring effective competition, efficiency and economy, research and development, are the responsibility of the Secretary of State and DGT according to the Telecommunications Act of 1984. The act requires all operators of telecommunications systems to be licensed by the Secretary of State for Industry in consultation with the DGT (Newman 1986). Approvals of standards of telecommunications equipment is also in the domain of the Secretary of State, or he may also authorize the DGT to assume this duty.

DGT and OFTEL

The DGT is appointed by the Secretary of State and is the responsible director of OFTEL, a nonministerial government agency established for enforcing the 1984 act. The DGT is responsible for enforcing licensing conditions,

as well as monitoring and investigating complaints about service and apparatus (King 1986). It collects information, advises and assists the Secretary of State in all telecommunications issues, and serves as a watchdog supervising BT's compliance with provisions of its license. License conditions under the 1984 act may be modified if needed (Newman 1986). Prescription of the right dosage of regulation and safeguarding telecommunications firms against direct pressure from politicians are among the duties of OFTEL. If BT does not comply with license conditions, OFTEL may apply to the courts and BT may be liable for damages (Newman 1986). OFTEL has a staff of approximately 120 employees and like all governmental agencies, its operating expenses are met by the government. However, almost all expenses are covered by revenues from license service fees. According to some critics, the main shortcoming of OFTEL is the lack of power to license new competitors, causing it to be described as a "watchdog with borrowed or rubber teeth" (Tsoi and Philip 1988). OFTEL can only impress upon BT that it must recognize its social responsibilities and accept competition. It has little power over BT except to file a legal suit against it (Tsoi and Philip 1988).

The British Approvals Board of Telecommunications (BABT)

BABT was established as an independent regulatory agency by the Telecommunications Act of 1981 to set standards and approve telecommunications equipment (Williamson and Purton 1988). Approval either from the BABT or from the Secretary of State is necessary for all equipment to be supplied for attachment to the BT's network (Vickers and Yarrow 1989).

Monopolies and Mergers Commission (MMC)

MMC (which was established earlier to regulate businesses) generally cooperates with the DGT in regulating the telecommunications industry. It deals with whether proposed mergers or changes in licensing conditions will injure the public interest, and how modification of license conditions could remedy or prevent those adverse effects (Vickers and Yarrow 1989). The DGT is free to follow the MMC's opinions and recommendations but is not required to follow them. The MMC also makes advisory decisions of whether vertical integration of monopolies with other national or international companies is against the public interest.

Cable Authority (CA)

The Cable Authority was established with the Cable and Broadcasting Act of 1984, and is responsible for licensing

and for safeguarding standards and compatibility of cable television companies (Vickers and Yarrow 1989). At present, cable companies are allowed to offer telephony services only and cannot become involved in other data information services. The extent of cabling in Britain has so far been limited. By the end of 1986 the Cable Authority had awarded cable franchises in 22 towns and cities (Vickers and Yarrow 1989).

Issues Facing the British Telecommunications System

Enforcing, monitoring, and modifying license conditions are the main responsibilities of the British regulatory agencies over the telecommunications system. Under its operating license, BT is required to provide telecommunications services throughout all the U.K. The company is specifically obliged to provide 999 emergency service, facilities for the disabled, directory inquiries, and public call box facilities, as well as universal service throughout the country.

BT was granted a 25-year master license. Besides its master license, the BT's license provisions cover more than one hundred pages (Newman 1986). Among these provisions, the most important license issues can be enumerated as follows:

1. Littlechild price control formula of RPI-X
2. Interconnection with other networks

3. Separation of network and equipment activities
4. Contractual liability
5. Information dissemination

1. Price Control Formula

The establishment of a regulatory system was the most sensitive and controversial aspect of BT privatization. Governmental control over prices is an essential part of the British regulatory system. Consultants, during the time the act was being considered, visited and examined U.S. public utility facilities and returned with recommendations that the American regulatory concept of "fair return on fair value" not be copied (Veljanovski 1991). A comparison of the American concept of regulation with an English proposal to regulate BT is shown in Table 12.

In regulation of utility rates in the United States, the private company calculates operating costs, capital employed, and the cost of capital. A regulatory body audits these calculations and sets a fair rate of return on the capital employed (Beesley and Littlechild 1989). If the utility makes more or less than this "fair" rate of return, prices are lowered or raised. Should the company object to the rate set by the regulatory body, it may appeal the decision to a court of law.

This type of regulation according to the British consultants may encourage over investment and discourage

Table 12. Advantages and Disadvantages of the American and British Systems of Utility Regulations

American System Fair rate of return: Profit ceiling	British System Formula RPI-X: Price Ceiling
Advantages	
1. Excessive monopoly profit may be prevented	1. Encourages efficiency, cost cutting and innovation
2. Regulatory body has authority to reject companies' claims of capital expenditures	2. Simple to enforce less burden on regulatory agency and less danger of capture of regulatory agency by industry groups
3. Companies may appeal from regulatory body to courts of law if not given a fair rate of return	3. Discourages over investment
Disadvantages	
1. No incentive for cost cutting and improving efficiency	1. No incentive to improve quality of service
2. No incentive for promoting innovation	2. Dependency of regulatory agency on utility for information
3. Complexity of the regulatory process and the danger of capture by the industry group	3. Incentives for utility to use ingenious accounting schemes to increase profits and prevent competition
4. Incentives to over investment and waste of resources	4. Does not take regulation out of politics; makes it less visible and more difficult to control

Source: Researcher's own tabulation compiled from Vickers and Yarrow (1989); Rudd (1988); Pricing the Privatized (1988); and Beesley and Littlechild (1989).

efficient operation of the utility monopoly unless the regulatory body has authority to reject the company's claims of capital investments. Utility firms under this system of regulation attempt to increase their capital base in order to ensure that prices and profits will be high. There is little incentive to cut costs of operation since efficiency (cost-cutting) may result in lowering of permissible rates by the regulatory body. The Prime Minister's Economic Adviser, Professor Walters, at the time the act was being considered, argued that the rate of return regulation is akin to 100% taxation; it creates poor incentives for innovation and efficiency. He also argued that the American experience with the rate of return concept showed it to be wasteful, bureaucratic and inefficient, as well as causing regulatory matters to become legal issues (Vickers and Yarrow 1989).

Professor Littlechild (1983), another advisor to the British government, recommended a price control formula made up of the retail price index minus an amount set by the government (RPI-X) in place of the American rate of return system. He proposed his formula as a means of controlling monopoly prices of BT. In its basic form, the prices of the regulated telecommunications services depend on both the actual inflation rate minus a sum that the government decides as the maximum it will accept. Littlechild also opposed the American concept of fair rate of return because

it discourages efficiency and innovation and because it complicates the tasks of regulating agencies which might become the captives of the industry, as many regulatory agencies have in the U.S. (Littlechild 1983). According to Littlechild, the simplicity of RPI-X price formula minimizes the burden of the regulatory agency and the danger of "capture." The formula requires the regulator only to check that the price formula is being met. It can also be easily targeted on those aspects of the business where regulation is most needed (Vickers and Yarrow 1989).

At the outset the government decided X to be 3% for a period of five years; that is, it would agree only to an increase of rates over 3% above inflation. The RPI-3 formula was applied until the middle of 1989. Since BT profits skyrocketed in 1989, OFTEL proposed a new formula of RPI-4.5 for a period of four years to replace the original RPI-3 (Rudd 1988). OFTEL also proposed to replace the RPI-X formula with a version of fair rate of return regulation, in order to prevent BT from making excessive profits. After announcement of this intention, BT's shares lost value dramatically in the stock market, and the British government warned OFTEL not to interfere (Tsoi and Philip 1988). This incident suggests that regulatory politics cannot be avoided in this regulatory scheme and the real struggle comes over defining the X in the formula, and in regulating the levels of profit by the company.

The RPI-X price formula applies only to certain services such as inland calls, local and trunk, residential and business lines and rental (Newman 1986). International services equipment and customer premises fall into unregulated areas. OFTEL, however, may bring unregulated areas under control by seeking a modification in the licensing provisions (Newman 1986). As the formula system works, BT makes its pricing decisions and notifies OFTEL which checks to ensure that the decision is within the prescribed ceilings (Newman 1986). OFTEL does not otherwise have any authority over pricing decisions of BT.

The biggest disadvantage of the price capping formula adopted by the British government is that firms can increase their profits by lowering the quality of service, and there is no provision dealing with the level of service or limits on profits which may be earned by the company (Pricing the Privatized 1988). As the firm lowers the quality of service, the present formula has no means of responding. Without giving the regulatory body more discretionary power over judging the quality of service delivered by the utility, determination of the service quality seems to pose an insurmountable problem to this type of regulation. A second disadvantage with the British system of regulation is that the regulatory agency is entirely dependent for information from the regulated firm. Companies which are by nature monopolies have every reason to mislead regulatory

agencies on issues of the prices (Pricing the Privatized 1988) and will use ingenious accounting practices to protect their position against the government or against possible competitors. Furthermore, this formula system does not take administration out of politics, since there is constant pressure from both the company and consumers for government to set the X amount to suit their preferences (Beesley and Littlechild 1989). As can be seen from both the American and British systems of utility regulation, there are serious problems in all systems of regulating utility monopolies.

2. Interconnection with Other Telephonic Networks

Under its license conditions, BT is required to permit other competitors, such as Mercury, the newly established competitor, and Hull, a municipally owned local telecommunications network operator, to connect with its network. Without access to BT's network, other firms could not compete or even operate throughout the country since BT has a virtual monopoly on local networks (Newman 1986). Furthermore, without mandatory legislation it has every incentive to exclude competition by refusing interconnection by fixing charges for interconnection at an exorbitantly high level (Vickers and Yarrow 1989). Interconnection charges may be set by OFTEL and it must be equal to or below BT's marginal cost in order to encourage competition between the duopolists (Vickers and Yarrow 1989). According to the

provisions in BT's license, the DGT has power to determine interconnection terms and conditions if the parties fail to agree among themselves within a reasonable time (Vickers and Yarrow 1989). BT and Mercury could not agree on interconnection terms, and Mercury applied to the DGT in early 1985 for a ruling. BT filed suit in the courts claiming that DGT had no power to make such a ruling. The legal case caused a one year delay and seriously harmed Mercury's ability to construct its system (Vickers and Yarrow 1989). The court found for OFTEL which had ruled in late 1985 that BT must provide full interconnections for both domestic and international calls of Mercury at a cost substantially less than BT's normal charges for the use of its lines (Vickers and Yarrow 1989). The authority to require and set fees for interconnects is seen by DGT as a means of promoting competition in the industry.

3. Separation of Network and Equipment Activities

The third important issue of license provisions of BT is a provision pertaining to separation of network and equipment activities. This is necessary to prevent BT from ultimately monopolizing the field of manufacturing telecommunications equipment. If BT were to use its network operation profits to promote its equipment production and sales activities, competitors in the field would be threatened. Under its license conditions, BT is obliged to

establish separate accounting and reporting arrangements for its network system and its apparatus supply business (Newman 1986). DGT has power to intervene should BT unfairly cross-subsidize between its apparatus supply, apparatus production business and its provision of mobile radio and value added services (Newman 1986). Subscribers using equipment purchased from a competitor are also protected against discriminatory behavior of BT through license provisions (Newman 1986).

4. Contractual Liability

Another part of BT's license is aimed at protecting consumers. BT is to be held liable for faulty repairs and may be fined £5 a day if it does not repair or fix faulty lines after two days. Furthermore, BT may be liable for injuries to consumers caused by lack of quality service. For residential customers it may be liable up to £1,000 per line, and for business customers up to £5,000 per line with a maximum of £20,000 per claim (Hill 1989). This license modification was made by OFTEL in 1988 after the service quality of BT deteriorated as a result of a strike of BT engineers (Yarrow 1989).

5. Information Dissemination

Another provision of BT's license pertains to the type of information it is required to submit to OFTEL. Regulatory effectiveness depends upon having adequate and pertinent information available for regulators (Pricing the

Privatized 1988). The Telecommunications Act of 1984 and BT's licenses gave the OFTEL the right to require BT to produce information to assist it in carrying out its function. Furthermore, OFTEL may publish such information to give customers, purchasers and other users of telecommunications services information about BT (Rudd 1988). OFTEL, according to Rudd, has not used this right to disclose information because it would be helpful for competitors. Furthermore, BT has not been cooperative in providing and disseminating information. It relies on BT's data rather than collecting its own information and does not consult with BT's customers about prices or service levels (Rudd 1988).

How to protect the interest of consumers under this system of regulation, according to Rudd, is still in its infancy and largely unanswered. On the other hand, Yarrow disagrees with this opinion and holds that OFTEL has successfully performed its role in protecting consumer interest. As can be seen from these differing conclusions, there are still major arguments over this system of regulation.

Preparatory Activities Undertaken before Privatization

The British government undertook several preparatory activities before privatization to ensure a smooth and successful transition. First, a decision was made that the

government would retain a 49% interest in ownership in order to protect the national interests. BT's financial structure was to be strengthened and the relationship between government and BT was clearly spelled out. New board members were appointed with wide business experience by the government and an attempt was made to change the organizational culture from that of a public agency to a private company. Finally, the provisions were made to protect the country's strategic interest should foreign owners gain control of BT by declaring that the 49% "golden share" would become active like all shares. The government then could counterbalance the foreign owners (Pirie 1987). Once these preliminary activities were completed the government sought to pacify the objections by employee groups and labor unions on such issues as seniority and retirement rights. Job reductions were undertaken by encouraging voluntary retirement with generous terms rather than firing employees.

One objective of privatization was to adequately capitalize BT in order to give it the financial strength needed to compete in both domestic and international markets (Newman 1986). As it was financed, BT became stronger than most U.S. telecommunication companies. BT also became recognized within the international financial community as a company of immense financial strength, and was rated as the fourth largest telephone authority in the world in 1983-84 (Newman 1986).

As the minority shareholder the British government has the right to intervene in BT's business affairs. However, the government gave a noninterference letter, promising that it will not use its rights as an ordinary shareholder, unless a majority of the stock falls into the hands of foreign investors (Newman 1986). Should foreign investors gain control over BT, the so-called "golden shares" would revert to ordinary shares and the government could intervene in the firm's operations (Pirie 1987).

A top management team was assembled to transform BT into a private sector company (King 1986). These new members were picked from the banking community, from the telecommunications industry such as IBM, and from BT's administration itself. The organizational structure was entirely reformed and new divisions were established based on functions and activities. Decision making also was decentralized (Morley 1986). Each of the divisions was headed by a managing director with its own board, and each works as a profit center (King 1986).

At the same time, business accounting systems were installed to enable the devolution to be overseen and controlled financially. Financial staff from outside the business were recruited, and account managers were appointed to look after the needs of large customers (King 1986). Other changes included instituting incentive payment schemes administered by people skilled in commercial negotiations,

and personnel appointments and promotion provisions were changed to place more emphasis on ability and productivity (King 1986).

To culminate all of these preliminary activities, the government initiated an intensive multi-media advertising campaign on television and the printed media to announce the sale and to explain the new system to the public. BT was sold in November 1984. When applications closed on 28 November, the offer was heavily oversubscribed, and the share price soon rose as a result (Vickers and Yarrow 1989).

Outcomes from Privatization in the U.K.

Proponents claimed that privatization would increase efficiency and productivity, lessen the burden of debt for the government, reduce inflation, lower unemployment, promote economic growth, and improve conditions generally. Privatization of SOEs in the U.K. have had an impact on some of these economic variables. The relationship between privatization of SOEs in the U.K. and important economic variables is shown in Table 13. This table derived from various studies evaluating privatization, however, shows that there is no evidence that privatization increased efficiency or productivity of SOEs.

The claim that privatization would lessen the debt burden on the government also is not clearly proved. The public sector borrowing requirement (ratio of public sector

Table 13. The Effect of Privatization on SOEs Generally

Variable	Impact
Efficiency	No impact
Productivity	No impact
Public sector borrowing requirement	Increased after 1990
Inflation	Decreased
GNP	Increased
Unemployment	Increased
Business formation	Increased
Tax Rate	Decreased for wealthy

Source: Researcher's own tabulation from Yarrow (1989), Finegan (1988), and Harnett (1990).

deficit to GNP) in Great Britain was decreased as a result of privatization until 1990. After 1990, however, this ratio again began to increase indicating that privatization did not result in a long term benefit as expected.

The £6.5 billion public sector borrowing requirement deficit recorded in the 1990/1991 financial year disappointed both the government and the markets (Harnett 1990). This disappointing result bears out Rodric's (1990) argument that a reduction in the PSBR that comes as a result of privatization is purely an accounting trick. According to Rodric, privatization results in the state receiving income it would have received in the future at the present time, but giving up the potential of future earning because

ownership is passed to private owners. He argues that this is no different from borrowing through the issue of government securities, except for the loss of ownership. Consequently, privatization according to Rodric's logic poses serious problems for future governments from a financial aspect.

Evaluations of privatization also cannot claim that the economy is greatly helped by privatization. In the years since privatization began in the U.K., inflation decreased, GNP increased, unemployment increased, net business formation increased, and the tax rate decreased for the wealthy class. The credit or the blame for the changes in these economic variables, however, cannot be attributed to the fact of privatization since numerous other factors in the economy also may have affected this change. The nation's inflation rate was reduced from 18% in 1980 to around 5% in 1988. It is difficult to pinpoint the cause of this decline. In addition to privatization, there were numerous economic reforms undertaken by the Thatcher government, and major changes occurred in the international economic environment after the oil crisis.

Real GNP also increased from £20 billion to £93 billion during the same period. Britain's top income tax rate was reduced from 83% in 1980 to 40% in 1988 (Finegan 1988). Net business formations increased from 16,100 to 45,000 during the same period (Finegan 1988). According to 1987 data,

private sector corporate profits jumped an average of 20% per annum. The number of shareholders quadrupled. Sixty percent of British families are now home owners, one of the highest rates in Europe (Fairlamb 1987). Unemployment, however, increased from 5.2% in 1980 to 8.2% in 1988.

Privatization may have been one of the factors aiding this improvement, although it cannot be verified. Some scholars argue, in fact, that evaluations of the relative performance of privatized firms cannot be made for a number of years since full results of this action will not be evident in the short term (Caves 1990). A consensus seems to exist that evaluation teams should be patient in order to have a clear picture about the full impact of privatization on SOEs and the economy generally.

Results of the Privatization of BT

Many of the same improvements which were claimed for privatization generally were made for privatizing the telecommunications system. One expected benefit of privatizing the telecommunications system by the British government was to improve efficiency in its operation. Private operations were expected to improve productivity and to produce better service at lower prices and to stimulate the nation's economy.

An overview of the findings of several evaluations of the impact of BT's privatization is presented in Table 14.

Table 14. An Overview of the Impact of BT Privatization on Some Related Variables

Variable	Impact
Prices	Decreased
Productivity	No impact
Quality of service	No impact
Sector growth	Increased
Financial outlook	Improved dramatically
Universal service	Problematic
Foreign trade	Problematic
Overseas ventures	Problematic

Source: Researcher's own tabulation from Yarrow (1989), Brunnen (1989), Williamson and Purton (1988), Hill (1989), British Telecom and Mercury (1990), Cairncross (1991), and Morais (1988).

As can be seen, since privatization the prices of BT services and products decreased and have not yet increased to their former levels. There is no convincing evidence, however, that privatization improved or worsened the productivity of BT or improved the quality of service (Yarrow 1989). The financial outlook of BT did improve greatly after privatization, and the telecommunications sector increased in size. The impact of BT's privatization on providing universal service, foreign trade and overseas ventures does not seem to have greatly improved the situation, and thus remains a controversial issue.

Yarrow (1989) examined the pre- and post-privatization economic performance of BT and looked at the prices,

employment, productivity and wages, investment, and quality of service. His findings did not show that privatization was particularly successful. BT's operating profit as a percentage of turnover between 1980 and 1984, the period before privatization, was an average of 24.2%. Following privatization, between 1985 and 1988, profits averaged 25.2%. After privatization of BT during 1984-1987 period, the average price decreased 3.3% in real or constant prices. This price decrease, however, took place only in the regulated fields. Another evaluation of prices charged by BT showed that BT's overall telecommunication charges were reduced 14% after privatization. The charge for telephone calls decreased 22.8%, telephone instruments 2.5%, answering machines 3.1%, and radio paging decreased 26.6% (Brunnen 1989).

No evidence was found in other evaluations to support the proposition that productivity was substantially improved after privatization. Yarrow (1989) found that labor productivity of BT actually had declined since the mid-eighties. Another study by Hill (1989) also found that BT gives inadequate priority to productivity. He compared the labor productivity of several world-wide telecommunications systems and found that BT's productivity was among the poorest. For instance, he found that the number of lines per employee in Ameritech, an American telecommunications company, is 208, in Nippon Telephone, a Japanese

telecommunications company, 133, and in BT it is 100. Among western European countries, such as Denmark, West Germany, Italy, Norway and Spain, BT also ranked the lowest in labor productivity in terms of number of lines per employee. Privatization of the British telecommunications system did not increase productivity. In fact, the low rankings in productivity for BT were in both the pre- and post-privatization periods (Foreman-Peck and Manning 1988).

The quality of service is another area in which privatization was expected to help. OFTEL conducted yearly surveys of public perceptions about service quality in 1986 and 1987. These results are shown in Table 15. No data was available for the years since 1987. As can be seen from these surveys, public perception about service quality of BT became increasingly negative in 1987. Unfortunately there are no comparative data with BT as a state operated enterprise.

Public perception about the service quality of BT changed negatively in 1987. A greater percentage believe that BT's quality of service worsened between 1986 and 1987, and less people believe that the service quality of BT improved. In fact, less people say that it remained the same. The fact that the BT engineers were on strike in 1987 probably was an important factor in causing this increase of negative perception. Since 1987, quality of service indicators have shown marked improvements (Yarrow 1989).

Table 15. BT: Public Assessment of Changes in Service Quality Since Privatization

Quality of Service	March 1986	March 1987
Improved	12%	8%
Stayed the same	72%	64%
Worsened	10%	23%
Don't know	6%	6%

Source: OFTEL (1987), in Yarrow, George. "Privatization and Economic Performance in Britain." Carnegie-Rochester Conference Series on Public Policy (Netherlands), 31: 303-351.

But these improvements are more the result of bullying by the regulatory agency, OFTEL, than of competitive pressures from Mercury (British Telecom and Mercury 1990). Evidence that this might be the case is found in the fact that in 1988 OFTEL modified BT's license to require that BT pay £5 a day if it does not fix or install lines within two days. Also, BT was made liable up to £1,000 per line for residential customers and £5,000 per line for business customers for providing inadequate service.

One area of improvement in the service of BT is the length of time it takes to get telephone service in a home or business. Before privatization there was a waiting list of people wanting phones connected of about 250,000 households. The waiting list no longer exists and prompt service can be attained (Morant 1987). More customer pool

and potential revenues might be the main impetus driving privatized BT to achieve this result.

The telecommunications sector grew twice as fast as the economy of the U.K. after 1984 and now accounts for over 2% of GDP (Brunnen 1989). Supporters of privatization claim that the innovations made in the British network have placed the country at the vanguard of technological development (Gilhooly 1987). Dramatic growth has taken place in mobile communication through the licensing of competitive cellular radio network operators. This result, however, has occurred elsewhere without privatization. As a result, claims of privatization supporters on this subject remain controversial.

Financially the privatized BT has done well. From 1984 to 1988 financial earnings have increased each year. In fiscal year 1988, BT reported record earnings of $2.5 billion on revenues of $17.4 billion. Earnings per share are compounding annually at 17% and dividends increased nearly 2.5 times (Morais 1988).

BT's expenses of providing universal service is a controversial issue. BT claims that it is forced to expend £2 billion a year to meet this obligation. Analysts, on the other hand, contend that the expense of expanding services is nearer to £100 million (Cairncross 1991). Since BT is a private company, it is not required to open its books to

outside scrutiny on the subject, and it has never agreed to a public audit (British Telecom and Mercury 1990).

Another controversial matter pertaining to privatization of BT is whether or not it has benefitted the country's economy. The U.K. has changed from a net exporter into a net importer of telecommunications equipment since privatization and jobs have been lost in the manufacturing sector as a result (Williamson and Purton 1988). These criticisms have not been responded to by the company.

Telecommunications is considered as the heart of the nation's economy, and it is believed that it will be the most significant growth industry during the next 25 years (Butler 1990). Based on this assumption, privatization of BT intended to make it into a world-scale telecommunications company, which could compete internationally.

As it prepared for the competition in the lucrative international market, BT was forced to strengthen its financial structure. After becoming the fourth largest telecommunications company in the world, it sought to compete in the North American telecommunications market, which accounts for half of the world's telecommunications market. BT purchased 51% share of Mitel, the Canadian private automatic branch exchange company as one of its first international expansions. This purchase, it was thought, would give BT a significant position in the international market. However, the purchase of Mitel became

a very costly lesson for BT. It paid around 320 million Canadian dollars for 51% share in the company. The total worth of the company now, according to its balance sheet, is 300 million Canadian dollars (Butler 1990) and the stock market valuation is even less. BT lost around 240 million Canadian dollars as a result of this purchase. In June 1989 BT made another international purchase when it acquired 22% share of McCaw Cellular Communications of the U.S. Only after completing the purchase did BT realize that McCaw had lost $205 million after tax in the first nine months of the year of the purchase (Hill 1989). BT paid around $1.5 billion for 22% share of this company. BT top management does not accept fully the responsibility for the failure of McCaw since the U.S. law prohibits foreigners from controlling over 25% of the ownership of native telecommunication companies. It argues that a minority owner cannot shape policies or control the operations of the company. They are trying to influence U.S. politicians to change the 25% limitation.

In November 1989, BT purchased Tymnet, a business systems network, from McDonnell Douglas Corporation for around £230 million. Again, BT international strategy was to gain a presence in the North American telecommunications market, and then spread throughout the world, as a world-scale communications network. So far this strategy has not worked. BT at present is attempting to sell Mitel and it

has changed its strategy by concentrating on its core services, network operations and turning to major suppliers for products (Butler 1990).

Yarrow (1989) also looked at pre- and post-privatization investment performance of BT. According to him, evaluation of investment performance of BT is highly constrained by the short data series that is available (Yarrow 1989). Percentage growth in real capital expenditure, however, declined from 9% in 1981 to 2.1% in 1988. The investment-to-sales ratio has decreased from 27.1% to 23.4% during the same period. The ratio of research and development to sales was 2.7% in 1983. It declined to 1.9% in 1988. BT's ability to respond to new technology has increased according to Bell (1990). Overall, since privatization, the labs have nearly doubled, to 4,000 researchers and support staff.

The lesson has been that moving away from a well-entrenched monopoly system into a competitive environment is much more difficult to achieve than had been thought (Underwood 1991). After seven years of privatization BT has 95% of market share. BT handles 85 million calls a day; Mercury, 2 million. BT has 400,000 pay phones, Mercury 1,300 (Underwood 1991). Privatization has only resulted in the establishment of a private monopoly along with the establishment of a regulatory system. Most argue that transformation of BT from a public monopoly into a private

monopoly has primarily benefitted big businesses at the expense of the average citizen. Some benefits have arisen for some particular sectors, but the overall situation remained the same (Tsoi and Philip 1988). The impact of Mercury was minimal because the company was simply not ready for competition and it is still in the process of building a network which is both capital intensive and time consuming (Tsoi and Philip 1988).

In summary, in the telecommunications sector, the prices of telecommunications equipment and services decreased. The telecommunications sector has grown since privatization. Productivity and quality of service neither improved nor deteriorated under private operation of BT. Financial aspects of BT have improved dramatically. BT has failed to meet its universal service obligations, and its overseas ventures resulted in big losses. Privatization changed the U.K. from a net exporter of telecommunications into a net importer. If regulatory bodies had not been vigilant in their duties, changing a public monopoly into a private monopoly and introduction of limited competition could have been detrimental rather than beneficial.

Although Great Britain is much more of a developed country than Turkey, a variety of lessons about privatization of telecommunications can be developed from their experience and applied to Turkey. The next chapter discusses these applicable lessons to the Turkish case.

CHAPTER 5

WHAT SHOULD TURKEY DO ABOUT PRIVATIZING THE TELECOMMUNICATIONS SYSTEM?

The main purpose of this study is to help Turkish policy makers with the difficult decision whether to privatize the national telecommunications system or not. It first required a categorization of Turkey as either a developed (DC) or less developed country (LDC) since the literature showed that different prerequisites are required in these countries and, therefore, different questions should be raised about these countries' attempts to privatize public utilities. Next, a case study was undertaken of the privatization of the British Telecommunications (BT) system in order to see if there were lessons which might be applicable to Turkey. Finally, several policy options based upon this information are considered to assist the Turkish leaders.

Categorization of Turkey

Turkey, as the comparative analysis showed, is still a less developed country (LDC). It is among the more advanced LDCs and in terms of macroeconomic indicators performed better in the last decade than any other LCD, except the Republic of Korea. Turkey has grown more than both LDCs and

DCs over the last ten years. Its per capita income is exceeded only by the Republic of Korea among other LDCs. Unemployment has been reduced to the level of most DCs during the last few years although a much larger percentage of its population still works in agriculture. The average inflation rate during the last decade was 45.7%, much higher than in DCs but not as bad as the inflation rate of other LDCs.

The comparative study of the physical quality of life similarly showed that Turkey, while better than most LDCs, does not have as high an index in this crucial area as developed countries. The physical quality of life indices, including the birth and death rate, infant mortality, life expectancy, literacy, and the distribution of labor among industrial, agricultural and service sectors showed that Turkey has more nearly the characteristics of LDCs than a DC.

Determination of Turkey's Ability to Privatize Its Telecommunications System

Once Turkey is categorized as being an LDC, it becomes necessary to examine if it meets the prerequisites for privatization of its telecommunications system set forth in the literature. Figure 2 (page 28) shows the prerequisites for privatization of utilities in LDCs. This figure raises a number of questions which need to be answered.

One question which must be asked in LDCs which are planning to privatize a public utility such as the telecommunications system is whether the LDC has a capital market strong enough to provide the required capital for such a large addition to its private sector. From its establishment in 1986, activity on the Istanbul Stock Exchange market has reached unprecedented levels. Turkish people shifted from traditional investment habits such as gold and foreign exchange to stocks. Profit-to-equity ratios are very high. As Turkey's economy has grown in recent years, the private sector has turned increasingly to the newly established capital market as an alternative financial resource. In terms of growth rate in trading volume, the Turkish capital market was ranked as the first capital market in the world. The real growth, however, has occurred since the passage of "decree 32," meaning that foreign investment has played a very important role in the development of the capital market. This might indicate the shortage of native capital and weakness of the native private sector.

Another question which must be researched in LDCs is whether the private sector is strong enough to assume the responsibility for such an essential service. In Turkey even though the Turkish government is trying to leave the economic arena to the private sector, the ability of the private sector to assume the full task for the economy has

not been proven despite the growth in the last ten years. The private sector's share in total investment in the country during the last decade is increasing very slowly, which may indicate that private sector entrepreneurship is still having teething problems. While the share of private sector stock is increasing very rapidly in the Istanbul Stock Exchange, this development cannot be interpreted to mean that the private sector has become strong. The private sector share of total industrial production decreased from 37.8% in 1981 to 21.8% in 1989, indicating that there are problems in increasing the size of the private sector.

PTT, the Turkish postal, telephone, and telegraph company, has been struggling to bring the communications industry and country to the technological level of most developed countries. Evidence of its success in advancing the industry is seen in the fact that the country is ready to launch its own telecommunications satellite. PTT also is expanding the paging and cellular system, and subscribers are able to use and generate computer data in the country. Consequently, Turkey appears to have the technological base for privatization.

As the Turkish telecommunications system has become more technologically sophisticated, PTT has attempted to ensure that all parts of the country are served with telephone and telegraph services. Although all areas of the country are not yet fully served, it appears that universal

service will be obtained by PTT within a relatively few years.

Multi-national corporations (MNCs) in some instances pose serious problems for nation states' sovereignty, especially the LDCs. A world-wide global monopolization of telecommunications systems seems to be occurring. By the turn of the century, it is predicted there will be only three telecommunication equipment makers in the field: Northern Telecom, Siemens and NEC (Grigsby 1989).

In their privatization of BT, the British realized this trend and sought to become a worldwide telecommunications equipment maker which could compete with and possibly take over the North American telecommunications market. It has failed in its attempt, but is still struggling to change the limitations imposed by the legal and political environment in the United States. Britain also recognized that it had to protect itself against foreign monopolies in its telecommunications system. In order to do this, it provided that 49% of the newly created private telecommunications system would be publicly owned, which could be used to protect national interest should a majority of the ownership fall into foreign hands.

Another question which needs to be considered before attempting to privatize the telecommunications system is whether Turkey has the pool of talented public officials to oversee the transition and to ensure protection of the

public interest. Turkey seems to have a pool of skillful public officials capable of undertaking the transition from public to private ownership in the country. So far the State Planning Office and the Public Participation Administration have successfully undertaken the privatization process of numerous SOEs in the country. None of these privatizations, however, were as large or of such a vital public utility as the telecommunications system.

Whether Turkey has the private managerial and entrepreneurship required to operate and advance the country's telecommunications system is another concern the country must consider. PTT, which now is a publicly administered system, has demonstrated that it has the managerial skills to take the country's telecommunications system to the technological level of most industrialized countries. It is also assumed that a new top management team with business experience can be assembled from the business, banking, and telecommunications sector in the country. Since the national pool of private managers and entrepreneurs already has been drawn upon to staff the other privatizations, it is not certain that an adequate supply of highly trained personnel can be maintained without retraining public managers already in the telecommunications business.

A well-designed regulatory system does not exist in Turkey, and this presents a major challenge to an attempt to privatize PTT. The country has no laws or history dealing

with private utilities. Lack of regulatory laws and an agency to enforce them can damage the public interest and result in monopoly prices and poor service quality under private ownership. The well being of the people should not be risked by privatizing public utilities before development of an effective regulatory system. Establishment of a regulatory system is a necessity before proceeding with this policy.

There are unique characteristics in LDCs in addition to the list of prerequisites required for a successful privatization. Some proponents of privatization of telecommunications systems in LDCs look at the poorly operated and inefficient systems in many of these countries and argue that privatization is needed because of the lack of management authority and political interference. This is not the case in Turkey. Turkey has a uniquely well-operated telecommunications system. The Turkish telecommunications system works efficiently and productively, and the management has autonomy in its decisions. Its governing board is not interfered with by the political leadership of the country, and the organization is earning a profit which goes to the public instead of private stock holders. The rationale for privatizing PTT cannot rest upon the same arguments made in some other LDCs.

From the analysis, it is obvious that there are obstacles facing privatization of the Turkish

Telecommunications. The continuing high inflation rate and the weakness of the private sector in the country, as well as the nonexistence of a regulatory system, all should be overcome before attempting to implement such a drastic change.

General Lessons from the British Experience

Although Great Britain is much more of a developed country than Turkey, there seems to be some general lessons from their experience which are applicable to Turkey. First, the national interest was protected in the privatization in Great Britain by having the state retain 49% of the ownership. Also, it was found that in the U.S. laws prevent foreign ownership of these vital services to no more than 25%. Any transfer of such a vital national interest by Turkey must protect the country first by imposing similar ownership restrictions.

A second general lesson can be learned from the attention given by Britain to the need for a regulatory system to protect the consumers and the public interest against monopoly prices. Both the British and American regulatory systems have positive and negative qualities. Therefore, both should be weighed carefully before creating a regulatory system in Turkey. A regulatory system takes a number of years to evolve, and therefore, no actions to

privatize should be undertaken until a regulatory infrastructure can be developed.

A third general lesson that may be learned from Britain's experience is that privatization does not necessarily increase the efficiency or the productivity of a telecommunications system. Since Turkey already has a well-operated system, this should be considered. Neither does it necessarily enhance the financial well-being of the state to privatize. In Britain the state gave up ownership for present revenues, but lost future income. Turkey at present receives the earnings which under private ownership will go to private owners. The question is whether it is wiser to give up future earnings for more immediate revenues or to continue public ownership in order to retain future earnings.

A fourth general lesson from the British experience is that a privately owned telecommunications system cannot necessarily better expand the telecommunications industry into the international market than publicly operated companies. Britain has not yet become the giant in international telecommunications systems it desires to be. The successes of the PTT operated by the state make it necessary to consider if it is worth the gamble that privately owned firms could do better.

Options Facing Turkish Policy Makers

There are a number of options which policy makers in Turkey should consider. They range from not privatizing to privatizing by following the British model. An attempt is made here to raise some of the main concerns which need to be considered under each option.

Option 1: Do Not Privatize

Privatization of the telecommunications system in the country involves many risks. There are at least five serious considerations which indicate that the country should initiate some additional policy analysis before privatizing this vital public utility.

First, the theoretical supposition undergirding the proposal for privatization suffers from a lack of empirical support. The supposition that public enterprises will operate more efficiently and are more productive under private ownership and operation remains only an unproven claim. The latest research of privatizations in the U.K. indicates that productivity and efficiency improvements did not necessarily occur under private ownership and operation. There is no empirical support for the claim that business is better than government operations. The main issue, therefore, is not public versus private, but a competitive versus a non-competitive environment (Caves and Christensen 1980). Isolation of government or private enterprises from

effective competition or regulation is the main reason for their inefficiencies. If private firms operate public utilities, the same results will occur if there is no competition or regulation. A decision to privatize in such a case could not be based on a specious argument.

Second, the reasoning for privatization of telecommunications in most LDCs does not apply to Turkey. PTT is not poorly run and does not offer inferior or unreliable service. In fact, just the opposite is true. The Turkish PTT is one of the most successful SOEs in Turkey. It operates efficiently, productively and effectively. The analogy of the LDC, therefore, should not be used to justify privatization in Turkey.

A third serious concern which should be taken into consideration is the threat of MNCs. The world-wide monopolization trend of telecommunications poses serious challenges to the sovereignty of nations. This challenge is not only applicable to Turkey, but also applicable to all LDCs and DCs.

If telecommunications systems stay under public ownership, it is difficult for MNCs to take over a nation's telecommunications system. In fact, one of the main forces behind privatization of telecommunications systems is the emergence of world-wide businesses related to telecommunications systems. These giant firms see state ownership as an impediment facing their development in the

telecommunications industry and, therefore, urge governments to privatize their telecommunications systems. Telecommunications is so vital to the national interest that the loss of control over this strategically important industry to MNCs endangers the sovereignty of nations. It is for this reason that Britain and the U.S. enacted special laws to defend national interests. Turkey should do the same if it privatizes.

Fourth, the results of telecommunications privatization have not been as successful as expected in the U.K. The only variables that were positively influenced from privatization of BT were the financial earnings of BT, prices, and the growth of the telecommunications sector. Privatization mainly benefitted shareholders of BT, prices of telephone service decreased slightly, and the telecommunications sector grew larger and more powerful. Productivity and quality of service remained the same. The negative results of privatizing BT have largely countered its positive influences. BT is not meeting its universal service requirements, the U.K. changed from a net exporter to a net importer of telecommunications equipment and service, and overseas ventures of BT at best have been problematic. Privatization revenues were consumed and used to reduce the tax rate of the wealthy class. As a result, the public sector borrowing requirement (PSBR) is increasing again in the U.K.

The fifth concern is the weakness of the private sector in Turkey. The ratio of private sector investment to GNP decreased from 10.7% in 1980 to 9.4% in 1985 then increased to 12.5% in 1989. The private sector involvement in the economy is very slow. One might argue that the large public sector investments to establish the infrastructure of the country is a factor in keeping the private sector share relatively small in the economy. Decreasing private sector share in total industrial production, however, does not support this argument. Private sector share in total industrial production decreased rapidly from 37.8% in 1981 to 21.8% in 1989. The increasing private sector share in the capital market is not a convincing argument in support of the notion that private entrepreneurship can properly handle and support the privatization of telecommunications in Turkey. The Turkish capital market grew rapidly only after "decree 32" was enacted, meaning that foreign investment played a significant role in this phenomenon.

Option 2: Privatize Slowly, Step by Step

The second option that might be followed would be to keep the public ownership of the network operations and to privatize step by step the physical equipment market and specialized services in the telecommunications system. Network operations have the characteristics of a natural monopoly, and creation of competition in this system would

only duplicate services and squander resources without creating the benefits competition normally provides. However, in the physical equipment market, such as telephone handsets, facsimile machines, private automatic branch exchange, and in service areas such as visual image, data and signal transmission, the telecommunications industry resembles in part a free market rather than a natural monopoly. The physical equipment market and special service areas would benefit from competition, and therefore can be privatized step by step in what might be called "privatization under control."

Before privatization a "SWOT" analysis (strengths, weaknesses, opportunities and threats of the environment) should be undertaken, and then, one by one, each area can be opened to full competition. Under this option, weakness of the private sector and the threat of MNCs are the main issues facing privatization. Placing the telecommunications industry completely in foreign hands, given the weak private sector in the country, could be problematic because reliance entirely on foreign entrepreneurship without promoting native investors may jeopardize the country's ability to stand on its own feet in the future.

Joint ventures between native private investors and foreign investors may be encouraged by limiting the permissible number of shares of foreign investors in the telecommunications firms. Several advantages may be gained

for the country through joint ventures. First, foreign investment is attracted into the country. Second, modern technology is transferred from abroad. Third, native entrepreneurship is both protected and encouraged by making use of the experiences of foreign entrepreneurs. Lastly, the threat of MNCs is blocked through limitation for foreign ownership in telecommunication companies. In the U.S., foreign companies are allowed to have only 25% of the telecommunications firms, and the U.K. places a limit of 49% on foreign ownership. Certainly Turkey should learn from this experience.

A regulatory agency is needed under this option to set standards and approve equipment. The Turkish Standards Institution may either be strengthened by additional staff and equipment, or a new agency for this purpose may be established within the Ministry of Transportation and Communications in the country for regulating the telecommunications system.

Option 3: Follow the British Pattern of Privatization

A third option which the Turkish government might consider is to privatize by following the BT privatization model. Britain followed a very cautious, well-thought out approach to change the ownership from public to private. Strategies were in place at the outset.

Since it did not know the results which would occur from full competition in the industry, it first created a single small competitor to test the waters. Also a regulatory system was established to promote and protect consumer interests once the full privatization decision was made. A regulatory agency, OFTEL, was created for monitoring license conditions, controlling prices, and ensuring the quality of service. As a result of these plans, the British Telecommunications organization was transferred from public to private ownership without any major handicap.

The financial structure of the newly privatized company was strengthened to compete in both domestic and international markets. BT's market relationship with government was carefully stated so as to prevent speculation occurring about its future actions. New board members were appointed with business experience. Organizational, structural, and cultural adjustments were conducted in a long-term, professional manner. The government protected British national interests with the "golden share" scheme, and possible objections from employees and labor unions were pacified skillfully. After an intensive advertisement campaign, the stock issues of BT was a success. The advantage of following Britain's example is that it ensures that possible problems can be thought out in advance.

If the Turkish government considers following the BT privatization model, the first step toward privatization is to separate telecommunications activity from the postal services. These two functions are very different. The postal system is labor intensive, whereas telecommunications is capital intensive. These functions need to be divided before privatization is undertaken. Britain did not privatize the postal service and neither has the U.S. Perhaps it should not be privatized in Turkey either.

It should be noted that in the British privatization model, full competition in the telecommunications field was considered as an alternative to regulation for industry. It was decided, however, that the full competition would lead to a balkanization policy of the domestic industry and to an inability to compete internationally. The lesson for Turkey seems to be that it should not attempt to establish a competitive system in the field of telecommunications.

The British experience also shows that a number of regulatory agencies are needed to regulate the industry. There is a need for a licensing agency with the power to authorize companies to enter certain parts of the industry. In Great Britain the secretary of state for industry, a member of the prime minister's cabinet, was given this power. The ruling party, therefore, in reality has the final say about licensing. In the U.S., which has a presidential form of government and separation of power

between congress and the president, the ruling party does not play the same role as a cabinet form of government; therefore, bipartisan boards usually are established to license and regulate utilities. Since Turkey has a cabinet form of government where the prime minister represents the majority party, it is recommended that it follow a similar pattern to Great Britain. The Minister of Transportation and Communication in Turkey seems to be the logical agency to hold this power.

Establishment of an organization to implement the company's license and the laws regulating the utility, similar to OFTEL in the U.K., is essential. It also should be given authority to enforce license conditions in conjunction with "golden share" arrangements and other limitations on foreign ownership. Provisions should be clearly enunciated on important licensing issues, such as the price formula, interconnection with other networks, separation of network and equipment activities, contractual liability as to quality of service, information dissemination, emergency service requirements, facilities for disabled, and directory inquiries, and time and financial requirements for providing universal service throughout the country.

Also a Monopoly and Mergers Commission is needed to guard against MNCs, especially since Turkey does not have at present any agency to regulate monopolies and unfair trade

practices. A cable authority similar to the one in Great Britain also might either be established separately or under the organization of an agency similar to OFTEL. It perhaps would be more economical if it is established under the Turkish counterpart of OFTEL as a division, since the extent of cable operation is limited in Turkey and only a limited number of municipalities operate cable TV.

An effective regulatory body is essential to enforce license provisions, monitor and investigate complaints about service and apparatus, modify license conditions when necessary, and insure that the pricing decisions of the companies are within the bounds of Turkish laws. The law needs either to follow the British pattern with a fixed formula for setting prices or the American pattern which provides for fair rates of return on a fair value of investment. It should supervise telecommunications firms' compliance with the license and have the authority to apply to the courts if the firm does not comply to its mandates. There also should be sanctions against firms which do not comply with the law or regulatory mandates.

Price regulation is the most sensitive aspect of any regulatory regime. It affects not only prices of the services but also affects the profits, efficiency, innovation ability, and tendencies to over invest by telecommunications firms. The quality of service, regulatory effectiveness, cross-subsidization of services,

competitiveness of telecommunications firms, and regulatory involvement in politics are all affected by price regulation. There are a number of significant decisions Turkey faces about how to regulate prices but perhaps none is more significant than the choice of the type of price control regulations.

Choice Between British and American Price Control Regulation

Basically Turkey faces a decision of choosing between the American system of fair rate of return (profit ceiling) and the British system of price formula of RPI-X (price ceiling) if it privatizes PTT. There are advantages of both systems which need to be examined. As was seen in Chapter 4, the British system encourages efficiency, cost-cutting and innovation. It is simple to enforce, places less burden on the regulatory agency, and there is less danger of capture of the regulatory agency by industry groups. The British system also discourages over-investment.

If we closely examine the advantages of both systems, the British system seems to outweigh the advantages of the American system for Turkey. When we compare the disadvantages of both of these systems of price regulations, the advantages of the British system tend to counter the disadvantages of the American price regulation, but the advantages of the American system do not offset the disadvantages of the British system (see table 12, p. 85).

The ability of Turkey to deal with the disadvantages of both of these regulation systems needs to be examined. Disadvantages of fair rate of return regulation presents a number of problems which Turkey would have difficulty overcoming. Under a fair return on fair value system, firms are limited as to the profits they can earn. This ceiling on profits may cause utility firms not to improve their cost-cutting efficiency efforts since innovations may lead to higher profits which under the regulators scrutiny leads to a reduction in profits under this system. There is little or no incentive for innovation. Furthermore, since the amount of profits are tied to the amount of investments, there is an incentive to over-capitalize. This would be extremely harmful to Turkey. The complexity of the regulatory process also increases bureaucratic involvement in the regulatory process which in turn encourages the regulated industries to enter politics so as to gain control of the regulatory body. The danger of capture by the industry groups is a real problem. Turkey is not pluralistic enough to withstand this kind of interest group politics.

The disadvantages of the British system of price regulation do not seem to be as threatening to Turkish society as the fair return system. For instance, one serious disadvantage of the British system is that the telecommunications firms may increase their profits by

lowering the quality of service and there is no incentive to improve service quality. If the quality of regulated service can be linked to the price formula, however, this problem can be overcome. High profits of the regulated monopoly resulting from low service quality can more easily be dealt with than the problems of the fair return system. A provision about the number of complaints on the regulated service may be attached to the price ceiling formula, and as the number of complaints increase, the amount of X in the pricing formula may be set higher to lower the prices and vice versa. It should be emphasized that the profit rate of the company should not be a concern of the regulatory agency if it is the result of efficient operation and innovation. If it is the result of low quality of service and products, then the regulatory body should have the authority to intervene.

Another disadvantage of the British price control system is that the regulatory agency is entirely dependent on the information from the regulated firms. To increase regulatory effectiveness, it is suggested that the regulated telecommunications firms be obliged to provide accurate information, to answer all requests for data from the regulatory agency, and that it be made liable for failure to respond or for providing misleading information. The regulatory agency should be authorized to investigate all cases of misleading information.

Flexibility of RPI-X, the British price control formula, is considered another weakness of the British system of regulation. The formula applies to a basket of services made up of a number of different types of services the company performs. If government sets X=3 to be applied to four service areas, the regulated firm might apply X=6 in some service areas where competition is intense and X=0 where competition is less. On the average, X remains as 3 in order to meet the mandated regulatory requirements, but this flexibility by the company permits cross-subsidization and results in anti-competitive behavior. It is, of course, detrimental to competitors operating in the field. Flexibility of the price ceiling formula may be changed into an inflexible one by requiring that the formula applies to each individual regulated service in its original form, not allowing cross-subsidization and anti-competition.

The final disadvantage of the British price regulation is that it causes political pressure from both the firms in the industry and consumers. Naturally firms want X to be set as low as possible, and consumers vice versa. This weakness of the British system is inherent to political decisions and cannot be avoided, but it is less political than the fair return system. As a result, the British price ceiling formula is more suitable to the Turkish case. It is simple to enforce, it encourages efficiency and innovation, it discourages over investment, there is less danger of

capture of the regulatory agency by industry groups, and its deficiencies may be overcome or lessened.

The price formula should apply particularly to the services where competition does not exist in the domestic market. It may also be applied for international services if the government desires to do so.

Other Crucial Issues to be Resolved

The British experience showed that the interconnection regulation among telecommunications network operators is another important regulatory issue to be considered. The Turkish PTT has a virtual monopoly on local and international telecommunications networks similar to BT's position before privatization. The license provisions should include a requirement that the privatized Turkish Telecommunications (TT) permit other competitors to connect with its network. The British experience shows that mandatory legislation is needed to prevent TT from excluding competition by refusing interconnection or by charging exorbitant prices for transmittal over its network. Interconnection charges should be regulated by the Turkish OFTEL so as to encourage competition. The rate should be equal to the TT's marginal cost or below it. To prevent legal disputes and delays harming both regulatory agencies and telecommunications firms, the power to determine interconnection terms and provisions should directly be

given to the Turkish OFTEL and competing parties should not determine these terms.

Another vital issue that needs to be carefully designed in the license provisions is to prevent the privatized TT from ultimately monopolizing the field of manufacturing telecommunications equipment. This can be accomplished through a separation of network and equipment activities and granting separate licenses for these activities. If the privatized TT uses its network operation profits to promote its equipment production and sales activities, competitors in the field would be threatened. As a result, under license provisions, the privatized TT should be obliged to establish separate accounting and reporting arrangements for its network system and its apparatus supply business. The Turkish OFTEL should have the power to intervene should TT unfairly cross- subsidize between its network system and apparatus production services. The discriminatory behavior of TT should also be prevented through license provisions against subscribers using another telecommunications firm's equipment.

Maintaining and promoting the quality of service and protection of consumers through license provisions is another essential issue that needs to be carefully designed. In the U.K., BT is held liable for faulty repairs and fined a certain amount of money if it does not repair or fix faulty lines after a certain time. In order to promote the

quality of service BT is held liable for financial injuries to customers caused by lack of quality service. License provisions in Great Britain provide residential and business customers the right to damages for poor or inadequate services. Turkey also should tailor these important regulations to the needs of Turkish society.

One other issue to be resolved through license provisions is to ensure that universal service be provided throughout the country. In the U.K., BT has failed to meet its universal service requirements. This might result from its unsuccessful international ventures in which BT lost billions of dollars. In Turkey, the privatized TT should be obliged to invest a certain percentage of its profit in rural areas in order to ensure that all sections are served within a reasonable time. This way, universal service can be ensured under private operation of TT.

Establishment of regulatory agencies and systems do not necessarily ensure an effectively working regulatory body. Regulatory effectiveness in part depends on the information available to the regulatory agency. For this reason, generation and dissemination of information by the private monopoly is very crucial. From the British experience, it is clear a private firm may not cooperate with regulatory agencies in providing and disseminating necessary information, and can thereby undermine the effectiveness of a regulatory agency. Turkey should learn from this

experience, and the privatized TT should be obliged to provide and disseminate necessary information. License provisions should hold TT liable for misleading information or failure to meet the request of the regulatory body.

Preparatory Activities Needed Before Privatization

The British experience in privatizing BT also showed that there are a number of preliminary activities which need to be undertaken. First, it is necessary to make a decision about what percentage of TT's ownership will be retained by the government. TT's financial structure needs to be strengthened to make it competitive in the domestic and international market. The relationship between government and TT should be clearly specified. Top management should be changed by appointing new board members with business experience. Organizational, structural, managerial, and cultural adjustments are vital for successful transition. The country's strategic interests should be protected through necessary legal measures. Without pacifying possible objections from employees and labor unions, privatization is not possible. After these preparatory activities are undertaken, the TT can be offered publicly through a multimedia campaign.

Before any preparatory activity is taken the government needs to decide what percentage of TT it will continue to own. In the U.K. the British government retained slightly

above 49% of BT. This strategy may also be followed by the Turkish government in order to protect the strategic interests of the country.

One important area that needs to be emphasized is that the TT's financial structure should be strengthened to make it competitive in both domestic and international markets. Realistically, TT's financial strength cannot be heightened at this time to the level of BT's financial power or other strong international telecommunications companies. It is necessary, however, to strengthen its financial power as much as possible if it is to survive in the international market.

If the Turkish government considers retaining some percentage of TT, it should clearly define the relationship between the Turkish government and TT. When and under what conditions the government as a shareholder will interfere in the business affairs of TT after privatization may affect the success of its operations and will influence the attractiveness of its stock in the capital market. The provisions in the license should ensure that a company is free from political interference unless specific events occur. The Turkish government should give a non-interference letter, promising that it will not use its rights as an ordinary shareholder, although it retains the power to do so.

Since the organization will operate in a private environment, appointment of new board members with wide business experience from the banking and business community is another important issue for a successful transition from public to private.

Privatization is not likely to have favorable outcomes unless the current organizational structure of TT, which is entirely based on regions, is modified. The old organizational structure of TT should be reformed based on functions and activities. Decision making needs to be decentralized and more responsibility should be transferred to division managers. Organizational reforms that took place during privatization of BT may be tailored to the needs of TT. Once it is decided to privatize, these modifications in the structure should be undertaken.

Modern business accounting systems need to be developed to replace the former system. A financial staff with business experience from outside needs to be recruited. Accounting managers need to be appointed to look after the needs of large customers. Incentive payment schemes should be introduced to attract people skilled in commercial negotiations. Appointment and promotion methods need to be changed to place more emphasis on ability and suitability of employees. Major training programs need to be undertaken to change the organizational culture from public to private.

Protection of strategic interests of the country and guarding against MNCs is another vital area to be carefully considered. In addition to establishment of a Monopolies and Mergers Commission to oversee mergers of native companies with foreign companies and limiting the foreign ownership of telecommunications firms, enforcement of "golden share" schemes is also needed in order to protect national interests. Turkey should also consider similar limitations as in Great Britain in order to guard against MNCs and to protect the country's national interests. If foreign ownership ever exceeds the legal limitations, the "golden share" could be activated to give the Turkish government voting control.

Britain's experience in dealing with the labor unions and employee groups in the BT also should be of help to Turkey. A smooth transition cannot be accomplished if political opposition from labor unions and employee groups is not successfully pacified. This can only be accomplished through compromises and offering generous advantages to employees similar to what occurred in Great Britain. Shares of the company might be offered to employees, and voluntary retirement with favorable conditions may be offered to encourage early retirement if job reductions are needed.

An intensive multimedia advertisement campaign is essential to attract public attention in order to sell the shares of Turkish Telecommunications. The Turkish

government should consider the capacity of Turkish capital market and avoid oversupplying public stocks. Timing is very important to offer stocks in the capital market.

The main purpose of this study has been to demonstrate the complexity of privatizing an essential public utility in Turkey. Since there are so many political, economic, and social aspects of such an action, it is finally suggested that a special advisory commission (similar to the advisory commission used in Great Britain) be created to help prepare recommendations for the government and to help implement the changeover.

Although this study was undertaken mainly to assist Turkish policy makers responsible for privatization of the telecommunications system in Turkey, it should be useful to policy makers in all third world countries planning similar privatizations. The conceptualization of the prerequisites essential for privatizations in developed and developing countries should enable them to assess the situation in their own countries. The process of evaluating the degree of development of a country by comparing macroeconomic and physical quality of life indices also should be applicable in other countries. Similarly the model describing the process of privatization of the telecommunications system in Great Britain contains a number of lessons that may be useful for other countries. The analysis of the strengths and weaknesses of American and British price regulation

systems also raises important questions about privatizing state-owned utilities. While it is recognized that each country's unique cultural, political, and economic situation makes it necessary to tailor privatization plans, it is believed that this study provides a framework useful in guiding all countries in their efforts to privatize utilities.

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