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RECOMMENDATIONS TO THE  
GOVERNMENT OF PAKISTAN AND  
USAID/ISLAMABAD ON THE  
IMPLEMENTATION OF THE  
PRIVATIZATION OF THE PAKISTAN  
TELECOMMUNICATIONS CORPORATION

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OF THE PAKISTAN TELECOMMUNICATIONS CORPORATION**

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## I. EXECUTIVE SUMMARY

### A. Introduction

The Government of Pakistan (GOP) is seeking, as part of its program for economic development, to privatize the Pakistan Telecommunications Corporation (PTC). In the course of moving to privatize the PTC, the GOP has and is currently receiving technical assistance through funding from the World Bank and USAID/Islamabad. Much of this assistance to date has focused on the restructuring or "corporatization" of the PTC.

### B. Objectives and Scope

Price Waterhouse (PW), through its International Privatization Group (IPG) was engaged to work closely with USAID/Islamabad and advise concerned GOP officials on the privatization of the PTC. This included:

- the review of the corporatization activities undertaken by the GOP for the purpose of assessing accomplishments to date and determining areas for future activities;
- the development of recommendations to the GOP and USAID/Islamabad for the implementation in a responsible manner of the privatization of the PTC within the shortest timeframe possible, through a transparent process in the context of a sound telecommunications policy framework; and
- the formulation of a new action plan and timetable for the privatization of the PTC.

In order to accomplish these objectives, we conducted meetings with key representatives of the Ministry of Communications (MOC), the PTC, the World Bank, USAID and the Corporate Law Authority, The Privatization Commission and the Planning Commission. In addition, we reviewed relevant legislation and documents made available to us by USAID and the GOP and other publications and articles.

C. Recommendations

Our recommendations which are based on specific conclusions relating to the scope and objectives above and which are discussed in detail in Section V of this report, are summarized below:

- develop a focused telecommunications policy prior to the solicitation of investors which addresses such issues as the proposed structure of the regulatory authority and ratemaking process, the competitive nature of the service markets and technical standards;
- abandon the current restructuring of the PTC since the purchaser will undertake its own restructuring once ownership of the company has been transferred;
- use a shareholders' agreement or license to incorporate policy decisions since the necessary detailed implementation of regulatory bodies and institutions will take time and will not be in place in time to conduct the sale;
- adopt a new timetable for the privatization of the PTC based on the revised approach recommended in this study ;
- transfer the assets of PTC to a new corporate entity and sell shares in this corporate entity to facilitate the privatization and reduce the necessity for an audit;
- revise current terms of reference for technical assistance in keeping with the new approach; and
- make early decisions with respect to:
  - development projects which are in the final stages of negotiation such as the current Build-Lease-Transfer (BLT) schemes currently in negotiation; and
  - certain labor and employment and tax issues such as termination payments and the allocation of the purchase price for tax purposes.

We have suggested a timetable which indicates the date for executing the sale of a majority

interest to a foreign telecommunications service operator by August 15, 1992 followed by a public share offer of the GOP's residual shares by December 1993.

## II. INTRODUCTION

### A. Background

The Government of Prime Minister Nawaz Sharif is actively pursuing a policy of privatization in Pakistan. It has already turned two commercial banks, the Muslim Commercial Bank and the Allied Bank, over to the private sector. The former is expected to be privatized through a public share offering set for sometime before the end of the year and the latter through the sale of stock to the employees. Currently, the Privatization Commission is receiving bids for some 115 manufacturing enterprises and is preparing to privatize the holdings of the Ministry of Water and Power (WAPDA) beginning with the Jamshoro Power Station near Hyderabad. In addition, the Planning Commission in conjunction with the MOC is working towards the privatization of the Pakistan Telecommunications Corporation (PTC) that was organized as a corporate entity in December 1990.

The telecommunications sector in Pakistan is subject to the same problems of unreliability and congestion that are characteristic of these sectors in developing countries. Low levels of investment in infrastructure development and maintenance have significantly reduced the quality of service in the country. Call completion rates in Pakistan for trunk calls are estimated at 12 percent. PTC provides both long-distance and local services and is organized into city districts (Islamabad, Karachi and Lahore) and provinces which include smaller cities, towns and rural areas. The GOP has a number of arrangements for the production of equipment with Alcatel, Siemens and Italtel Telematica of Italy. At the present time, the MOC has granted licenses to two cellular mobile telephone operators: Paktel which is owned in part by Cable & Wireless and Pakcom which is owned in part by Millicom Inc. The GOP's objective is to expand the PTC network as rapidly as possible to meet existing demand which is estimated to be in approximately 800,000 lines and improve the quality of the service. This is in keeping with a promise made by the GOP on taking office.

The privatization of the PTC presents the Government of Pakistan (GOP) with special challenges. Generally, telephone companies in developing countries are dependable generators of foreign exchange earnings and, among the state-owned enterprises (SOEs), they are important sources of government revenue. This is true of their international operations especially in the cases of countries with significant immigrant populations living in "hard currency" countries and those in which outgoing international call rates are kept artificially high. Research has shown that annual rates of return on telecommunications investment to the economy in general can be as high as 20-30 percent and financial rates of return on

investments can be 15 percent and higher. As privatization candidates, they are attractive to foreign and local investors because of their size and earnings potential. These large, highly visible and complex entities, are fundamental to the overall efficiency of the national economy and require specialized expertise to complete the transaction and protect the public interest.

To assist the GOP in meeting this challenge, USAID/Islamabad and the World Bank are providing technical assistance in the privatization of the PTC. World Bank consultants, who assisted in the commercialization process, have recently provided the GOP with a proposed action plan and an outline timetable. This plan recommends that the GOP conduct a series of studies and implement complimentary actions to develop and establish an organized technical, legal and institutional framework conducive to private investment and to the orderly development of the telecommunications industry in accordance with a defined policy. In addition, the World Bank plan calls for the internal restructuring of the management and organization of PTC over a period of two years, prior to the privatization of the PTC. This approach targets the building of additional corporate value, deemed necessary to attract qualified investors. However, the two-year implementation period, outlined in the World Bank report, does not respond to the GOP desire to complete the privatization in a shorter time period.

**B. Objective and Scope**

The objective of this project is to provide USAID/Islamabad and the GOP alternatives for an effective privatization of the PTC in the shortest timeframe possible. This has included developing a scope of work that defines priority activities, alternative strategies and a timeframe for their implementation. This timeframe is being determined by the GOP's need to fulfill a promise made on taking office to reduce existing demand for some 800,000 lines and the need to identify appropriate sources to finance this investment.

In order to accomplish this objective and meet the requirements of the scope of work, we:

- conducted meetings with key representatives from the PTC, the MOC, USAID/Islamabad, the World Bank, MG Associates, the Privatization Commission, the Ministry of Planning, International Resources Group (IRG) (currently conducting the privatization of the Jamshoro Power Station), and the Pakistan Corporate Law Authority;
- reviewed the corporatization activities of the PTC and other actions taken by the GOP in moving towards the privatization of the company to assess

accomplishments to date and determine what remains to be completed; and

- reviewed scopes of work for technical assistance prepared by the GOP and the World Bank, legislation and other documents and articles related to privatization in Pakistan.

C. Organization of the Report

Our report is organized into five sections. Section I contains a brief description of our findings and recommendations. Section II introduces the report, outlining our objectives and the scope of the work. In Section III we present our review of the corporatization activities to date conducted by the GOP. The findings of near term issues are contained in Section IV. Finally, Section V presents our conclusions and recommendations pertaining to the USAID/Islamabad role in the PTC privatization and the associated implementation timeframes.

### III. REVIEW OF THE CORPORATIZATION OF PTC

#### A. Background and Objectives

The first step taken towards privatizing the Pakistani telecommunications enterprise has been the establishment of an entity with its own Board of Directors and assets, for which it is accountable. This "corporatization" or commercialization process is expected to enable the entity to operate in a more efficient, productive and financially viable manner and to build a corporate culture more in keeping with its ultimate private sector destiny.

#### B. Accomplishments To Date

In order to develop recommendations for a future strategy and a timeframe for privatization, we have reviewed the activities directed to the achievement of the privatization of the PTC. These include:

- the creation of a new legal entity;
- the initiation of work on a regulatory and legal framework to support privatization;
- the initiation of a capital investment program;
- the establishment of management and organizational structures at some levels; and
- the identification of necessary technical assistance.

##### 1. Creation of A New Legal Entity

In December 1990, the President of Pakistan promulgated the Pakistan Telecommunications Ordinance which vested the undertaking of the Pakistan Telegraph and Telephone Department to the Pakistan Telecommunication Corporation.

Under the terms of the Ordinance, the PTC in performing its functions is expected "to have regard to":

- the desirability of improving and developing its operating systems;

- technological developments in the field of telecommunications;
- efficiency and economy; and
- commercial viability and social benefits.

The company is managed by a Board of Directors consisting of a maximum of 11 Directors and a Chairman appointed by the GOP for a three-year term. Departmental employees have been transferred to the new company on the same terms and conditions to which they were entitled before the transfer. According to the June 1990 balance sheet, the book value (based on depreciated replacement cost) of the Company was approximately US\$1.4 billion. Tariffs will be set by the Board of Directors with the prior approval of the GOP.

2. Initiation of Work on a Regulatory and Legal Framework to Support Privatization

Telecommunications policy is currently governed by legislation such as the Telegraph Act and the Wireless Telegraphy Act. Regulatory authority in Pakistan is vested in the Federal Government, specifically the MOC. The latter has sole authority to grant and enforce licenses and permit the establishment, maintenance and functioning of telecommunication systems within Pakistan as well as its territorial waters and airspace. International and domestic services are provided by the Corporation.

Within the MOC, regulation is the responsibility of the Office of the General Inspector of Telephone and Telegraph (GITT). The GITT holds the rank of Additional Secretary and is primarily responsible for evaluating equipment and supervising installation.

Ratemaking is also the responsibility of the MOC and the process is based on the GOP's funding requirements and budgetary projections. In 1985 a study was conducted by the National Development Finance Corporation (NDFC) that included cost of service and price cap approaches to ratemaking. In addition, the Board of Directors has established a group within the PTC to formulate a "tariff rationale."

In preparation for the privatization of PTC, the GOP has begun work on the establishment of a regulatory and legal framework. Such a framework will address such issues as the type and structure of the regulatory body, the degree and level of competition in the sector, the rate structure, the provision of services in rural areas and the enforcement of uniform standards for equipment, networks and services. This has been initiated by a visit of a team from the MOC to the U.K, U.S.A and Mexico to study their regulatory frameworks. The

team is expected to deliver a report on its findings and recommendations to the Minister at the end of October. Initial indications suggest that the recommendations will include the adoption of the "centralized" regulatory agency models currently in place in the U.K. and Mexico and the adoption of price cap methodologies to regulate tariffs.

In addition, the GOP recently received technical assistance from World Bank consultants hired to assist in the implementation of the corporatization of the PTC. We understand that they have made recommendations concerning the regulatory framework and have developed drafts of related documents.

### 3. Initiation of a Capital Investment Program

In keeping with its promises, the GOP has initiated a capital expansion program targeted to meet existing service demand for some 800,000 lines in addition to the current 1 million lines in use. In this regard it is in the process of considering agreements for Build-Lease-Transfer (BLT) schemes for 500,000 lines through which equipment suppliers will install facilities that will connect to the network and be leased to PTC. The entire cost of the project is in excess of US\$500 million.

The PTC has issued a letter of intent for 182,000 lines under a BLT arrangement that is to be executed by the end of October 1991. Another letter of intent for 220,000 lines is expected to be issued soon. This process was initiated prior to the concept of entity privatization, and was intended to satisfy unfulfilled demand for telephone service with minimum delay.

In addition the World Bank is planning to provide US\$160 million to optimize networks and replace obsolete items. These projects are outside of the Company's internally funded construction expenditures which amounted to US\$100 million in each of 1989 and 1990.

### 4. Establishment of Management and Organizational Structure

The World Bank consultants have prepared organizational charts and studies covering middle-management and upwards. The consultants have also made recommendations to restructure the commercial and MIS departments. Although the former departmental employees have been legally transferred to the new entity, they continue to be treated as part of the Civil Service, subject to civil service salary scales.

5. Identification of Necessary Technical Assistance

To accelerate the privatization process, the GOP has developed terms of reference for two consulting engagements: one to formulate the telecommunications policy and design the companion legislation and institutional structures, and a second to design and implement a privatization strategy.

The terms of reference (RFPs) are based on the assumption that a regulatory and legal framework should be in place before the privatization of the PTC is implemented. It is assumed that marketing of the company to prospective buyers will be greatly facilitated by the presence of a sound legal framework supported by institutions. Based on discussions with firms that appeared before the Privatization Committee for interviews, the draft cover letter to the RFPs states its expectation that both assignments (excluding the actual organization of the regulatory body) could be completed within 3 to 6 months, a timeframe we consider to be infeasible.

**IV. PRIORITY ISSUES IN THE PRIVATIZATION OF THE PTC**

In formulating recommendations for the development and implementation of a PTC privatization strategy, we have identified and discussed selected key issues critical to the determination of such plans, and areas that remain to be addressed. Based on our review, these include:

- the choice of an appropriate transaction structure;
- the need for an audit;
- the need for further restructuring prior to privatization;
- the development of a telecommunications policy;
- the development of the institutional and legal framework for implementing policy;
- the nature of the investor;
- continued GOP participation;
- implications for the employees;
- taxation;
- the impact of the Capital Investment Program; and
- public relations.

**A. Choice of an Appropriate Transaction Structure**

We understand the stated objectives of the PTC privatization to be as follows:

- improve the efficiency of the economy;
  - expand the network and range of services;

- improve the quality of service;
- provide significant revenue to the GOP; and
- enable the GOP to focus only on the business of government.

Based on these objectives, we have identified the following alternative strategies for the privatization of the PTC:

- contracting out part or all of the operations;
- leasing the facilities on a long-term basis;
- entering into BOT and/or BLT schemes; and
- partial sale through a private placement.

The only alternatives that accomplish the objectives which the GOP has been pursuing, are the partial sale of the company and the implementation of BLT schemes. The partial sale will provide significant revenue to the GOP and, if the buyer is a foreign operating company, infusions of capital and technology thereby improving the quality of service and expanding the network and services. Other alternatives do not meet all of these objectives. While "contracting out" result in increased efficiency and lower costs, it does not reduce the GOP's financial obligations. In fact, the management group would have to be paid by the GOP. The situation is somewhat similar in the case of a lease where improved services and lower costs are the results of such an arrangement. However, both of these arrangements do not result in immediate and significant revenues to the GOP. Furthermore, from our discussions with GOP representatives, and a review of the direction the GOP has consistently taken during the past year, we believe that this issue has been settled in favor of a private partial sale. Here, the key issue for consideration is directed to the alternative of selling the shares or assets of PTC.

Under the PTC Ordinance, all assets and liabilities belonging to the Pakistan Telegraph and Telephone Department were transferred to the new company. Our brief review of the PTC balance sheet as of June 30, 1990 presents a complicated and uncertain impression of the company's accounts. The balance sheet contains a number of fund accounts that were transferred from the GOP departmental status. In addition, the existence of a number of suspense accounts could lead the reader to conclude that accounting problems exist, thus casting doubt upon the veracity of the balance sheet figures. Moreover, investors would be

concerned about the underrealization of accounts receivable and non-operating assets that are included in the accounts of the existing entity or the possibility of the existence of unrecorded liabilities, and may, therefore, negotiate the price downwards to compensate for such risks. There are other reasons why the PTC would not be an appropriate vehicle to transfer the undertaking of the entity to the private sector. These are set out in Appendix A.

In addition to the issues raised in Appendix A, there is a fundamental reason why PTC, as incorporated under the Ordinance, would not be a suitable vehicle for private investment. Investors usually have reservations about making investments in an entity that can be easily singled out for discriminatory action, by virtue of being incorporated solely under its own special statute. This contrasts entities which, because they are incorporated under general legislation, cannot be affected by amendments to the law unless all companies under the law are similarly affected. In addition, there is an abundance of case law and precedents dealing with general company legislation, upon which investors might reasonably rely. Entities formed by way of special legislation are limited in number.

The PTC could simply be re-incorporated under general legislation but this could present investors with a corporate and capital structure unfavorable to them for tax and financial reasons. Another alternative could be to transfer all of the relevant PTC assets to a new company to be structured in accordance with the negotiated terms.

B. The Need for an Audit

An audit of the PTC could be a very time consuming and expensive exercise. There is no guarantee that an unqualified audit opinion could be rendered. Indeed there are indications, given the passage of time, that since certain mandatory audit procedures such as the evaluation of internal controls, observation of physical inventory counts and confirmation of receivables cannot now be performed, there would inevitably be a disclaimer. Furthermore, the need for an audit could be removed if the privatization of the PTC is accomplished through an asset sale rather than a sale of shares. Since only the existing assets of the PTC and none of the liabilities will be transferred to the new corporate entity which will be incorporated on general company legislation, only an asset valuation would be necessary.

Finally, it should also be noted that investors will be more interested in the future prospects of the company than past financial performance. This is especially valid in the case of newly-privatized telecommunications companies since the continued profitability of entity relates to the regulatory framework and the license rather than to past performance.

C. The Need for Further Restructuring Prior to Privatization

Although the GOP has undertaken several activities to promote the privatization of the PTC, the overall implementation of the corporate restructuring of the company has been limited. The issue of whether this process should continue needs to be examined. Experience in other countries has shown that purchasers of candidate companies have conducted company restructuring after the purchase in keeping with their particular corporate operating practices. This removes the need for governments to spend time and money to restructure privatization candidates before their sale.

In the Jamaican case, Cable and Wireless established its own operational policies, salary structure and information systems after the partial purchase Telecommunications of Jamaica, the holding company for JAMINTEL and JATELCO the international and local telecommunications carriers. A similar situation exists in Argentina with the privatization of Empresa Nacional de Telecomunicaciones (ENTel) where new owners have begun establishing new organizational structures, introducing improved working practices, staffing senior management positions with parent company staff to strengthen middle management and supervisory levels and addressing technical issues to improve service quality and expand network services. In the case of the PTC, further restructuring beyond what has already been accomplished would be unnecessary in the context of imminent privatization, although development of a regulatory framework is needed, as discussed below.

D. The Development of Telecommunications Policy

In order to successfully discuss this issue, it may be useful to distinguish between the establishment of a broad telecommunications policy which is a political function of a government and regulation which is the detailed interpretation of the policy and is intended to be less political and objective. The development of both a telecommunications policy and a regulatory framework before the privatization of the Corporation is a key element in attracting investors and protecting the public. However, given time constraints, the GOP should focus its efforts on the development of a telecommunications policy and the significant issues that affect the privatization of the telecommunications system. These include:

- restrictions on the extent and level of foreign ownership;
- the introduction of competitive entry into certain service markets, the preservation of exclusivity in others and the resale of basic services;
- the combination or splitting of international and national operations and the

sharing of revenues to cover the capital investment costs to the local telephone company for the domestic network;

- the maintenance of one central telephone company or the division of the existing company into regional operating companies;
- type of tariff structure that should be used and whether dominant carriers should be regulated separately or not;
- the provision of rural services; and
- the establishment of standards related to the quality of service and interconnection.

Consideration should be given to whether policy should be precisely set in detail or be allowed to evolve through negotiations conducted in the context of a broadly-stated policy.

E. The Development of the Institutional and Legal Framework for Implementing Policy

The regulatory structure and policies imposed on the telecommunications sector will affect the commercialization process of the PTC in two ways. First, the regulatory structure will affect the ability of the PTC to maintain the financial viability required to honor commitments to significant suppliers of fundamental inputs. Second, the regulatory structure will also affect their ability to attract capital and talented employees.

In addressing regulatory issues, the following criteria should be considered:

- the institutional structure or rate setting mechanism should promote financial stability and viability for the Company;
- the regulatory structure should protect consumer interest in a privatized environment;
- the regulatory framework should provide sufficient incentives for efficient operations and management;
- the ratemaking process should be relatively free from political intervention; and

- the regulatory framework should provide "expert" regulation.

1. Regulation

Following our discussions with government officials combined with our experiences in numerous other countries, we have developed two primary options for the institutional structure of the regulatory framework in which the sale should be conducted:

- formalize a ratemaking department within the MOC that would actively carry out the tariff policy put forward by the GOP;
- establish a Commission outside of the MOC that would have a degree of independence in carrying out a telecommunications regulatory policy.

Exhibit 1 presents a summary of these two options, as well as the advantages and disadvantages of each.

**Exhibit 1**

**OPTIONS AVAILABLE FOR REGULATORY INSTITUTIONAL RELATIONSHIPS**

OPTION	CHARACTERISTICS	ADVANTAGES	DISADVANTAGES
Continued regulation by MOC	Statutory authority for setting rates remain with the MOC	<p>Allows maximum GOP input into the ratemaking process</p> <p>Social goals of the GOP can be reflected in the rate structure</p>	<p>Potential for excessive political intervention in the ratemaking process</p> <p>Political pressures may create incentives for creation of cross-subsidies in the rate structure and delaying overall rate increases, which may decrease the attractiveness of PTC to private investors</p>

Exhibit 1 (continued)

**OPTIONS AVAILABLE FOR REGULATORY INSTITUTIONAL RELATIONSHIPS**

OPTIONS	CHARACTERISTICS	ADVANTAGES	DISADVANTAGES
Establishment of Separate Regulatory Commission	A separate regulatory body would be established to review PTC's rates, and potentially its operations. This body may regulate other utilities within Pakistan as well.	<p>Less potential for political biases in the ratemaking process than under direct MOC control</p> <p>Regulation at "arms length" from the GOP may make PTC more attractive to potential investors</p> <p>Encourages "expert" regulation</p>	<p>Costs of establishing a separate regulatory body are perceived to be relatively high</p> <p>Depending on structure, there may still be potential for excessive political influence in the ratemaking process</p>

2. Ratemaking Mechanisms

There are several ratemaking mechanisms that could be considered by the MOC. These are:

- strict rate base/rate of return regulation (as practiced in U.S.);
- rate of return benchmark;
- price cap formula (as implemented in the privatized U.K. telecommunications, electricity, gas and water industries, and in the U.S. long distance telephone services).

The advantages and disadvantages associated with these mechanisms are summarized in Exhibit 2.

**Exhibit 2**

**OPTIONS AVAILABLE FOR SPECIFIC REGULATORY MECHANISMS**

OPTION	CHARACTERISTICS	ADVANTAGES	DISADVANTAGES
<p>Strict Rate Base/Rate of Return (ROR) Approach</p>	<p>Detailed analysis of PTC's revenue requirements (including rate base, operating expenses, and return requirement), cost of service and rate design studies.</p>	<p>Best protection against abuse of market power.</p> <p>Generates detailed analysis of PTC's cost structure and rate design, guarding against cross subsidies.</p>	<p>Relatively costly and time consuming.</p> <p>Provides perverse incentives to artificially increase rate base and operate inefficiently.</p> <p>Least favorable to potential investors.</p>
<p>Rate of Return Benchmark Approach</p>	<p>Agreement between the GOP and the PTC as to maximum/target rate of return.</p>	<p>Less costly and time consuming than strict ROR approach.</p> <p>Guards against excessive profits.</p> <p>Potentially most attractive mechanism for potential investors.</p>	<p>Provides perverse incentives to artificially increase rate base.</p> <p>Provides few incentives for efficient operation.</p> <p>Difficult to detect discriminatory pricing or cross-subsidies in rate design.</p>

Exhibit 2 (continued)

**OPTIONS AVAILABLE FOR SPECIFIC REGULATORY MECHANISMS**

OPTIONS	CHARACTERISTICS	ADVANTAGES	DISADVANTAGES
Price Cap (RPI-X) Approach	PTC can increase prices over time at a rate not to exceed inflation (the rate of price increase, RPI) minus productivity increases (X). Base rates and "x" are reviewed periodically.	<p>Less costly and time consuming than strict ROR approach.</p> <p>Attractive to investors because of potential to earn extra profits if operated efficiently.</p> <p>Provides excellent incentives for efficiency.</p>	<p>Does not provide strong framework for detecting discriminatory pricing or cross-subsidies.</p> <p>Difficult to detect subsidies.</p>

The issue of what regulatory elements should be in place before privatizations occur has been the source of much discussion. In the recent cases of Argentina and Mexico, privatization strategies included provisions for regulatory structures which were defined and formally established before the transfer of the companies to private owners. However, the privatization process was completed before these agencies were able to develop operational and regulatory expertise capabilities. In Venezuela, the Government of Venezuela is responding to this need through the establishment of a temporary regulatory authority to supervise the transition and address urgent matters such as licensing new networks and services. At the minimum, in order to facilitate negotiation with investors, the regulatory structure should be clearly defined.

F. The Nature of the Investor

In considering potential investors for the purchase of telephone companies, governments in developing countries have selected investors as much for their technical and management

expertise as for their financial capabilities. One notable exception is the case of Chile where the Compañía de Teléfonos de Chile was sold to Australian financier Alan Bond. Foreign operating companies such as Bell Atlantic, France Telecom, Cable and Wireless and Southwestern Bell are now partners with the Governments of Jamaica, Argentina and Mexico in the operation of their telecommunications companies. Based on our review of the list of companies invited to the pre-bid meeting, it appears that the GOP is seeking--and rightly so--an investor who will bring management expertise and technology plus capital to the industry. An alternative could be to widen the base of potential investors by seeking only capital and attempting to involve an operating company through a management contract.

G. Continued GOP Participation

The GOP may retain an interest in the Company either as a matter of policy or in circumstances where the foreign investor is only able to provide cash equivalent to a portion of the value of the assets being purchased. We note, from the privatization pre-bidding document provided to potential investors, that the GOP intends to retain 49 percent of the equity for later sale to the general public and the employees of the Company. In later discussions, we learned that the GOP is flexible on this point, with one objective of retention being to reduce outlay by the investors. However, at least 51 percent must be sold per GOP policy. We estimate that the total amount that can be raised from employees and individuals in the local capital markets is unlikely to exceed US\$140 million (5 percent of US\$3 billion - 0.5 percent to the employees and 4.5 percent to the general public). This indicates that the retention plan by the GOP is on the high side even if some of the new investment is introduced by means of debt within the boundaries of a prudent debt/equity ratio (e.g. 1:1).

H. Implications for the Employees

a. Retention of Existing Workforce

It appears as though the GOP will require the prospective purchaser to maintain the current workforce. This requirement is not viewed by the GOP officials as being onerous, since any overstaffing will be corrected by the attrition rate (there is significant demand for PTC-trained technicians in the Middle East) and by the expected expansion of the network.

b. Payment of Notice and Gratuity

This issue will arise if employees are transferred to a new entity in the event of an asset sale transaction structure. From our review of the West Pakistan Industrial and Employment (Standing Orders) Ordinance of 1968, notice and gratuity payments are not due in relation to

establishments where statutory rules of service conduct or discipline apply. Although in practice PTC employees continue to be treated as though they are subject to such rules, this does not reflect the legal status of PTC. However, there is another test by which PTC may be exempted, as the definition of industrial and commercial establishments in the Standing Orders does not include the telecommunications industry. Liability for notice and gratuity arises "where a worker resigns from service or his services are terminated by the employer" and will be one month's pay in respect of notice plus one month per year of service in respect of gratuities, using the highest monthly pay in the last twelve months. Legal advice should be sought on this issue.

c. Mandatory Employee Profit-Sharing

Under the Company Profits (WP) Act, employers who are "industrial undertakings" are required to set aside a portion of their profits in a fund for the benefit of their employees. However, the definition of "industrial undertaking" does not appear to include telecommunications, unless telecommunications is deemed to be the "transformation," "conversion," "transmission" or "distribution" of "electrical energy." Again, legal advice should be sought on this issue.

I. Taxation

Consideration should be given to the taxation issues that may arise related to the privatization of the PTC. This is important since these issues could affect the attractiveness of the offer to an investor and the magnitude of potential benefits to the GOP from the process. Among the key issues in this area are the tax treatment of depreciation and goodwill, as well as the proposed tax exemption that will be granted to the investor.

a. Depreciation

The asset valuation (as opposed to the "going concern" valuation) will form the basis for the tax depreciation (capital allowances). However, since these will be "second-hand" assets, accelerated depreciation will not be allowed. It would be preferable from the investor's point of view if the entire purchase price (excluding the amount attributable to the inventories) could be considered as fixed assets, as there would be more certainty that the full price could be written off for tax purposes.

b. Goodwill

The balance of the purchase price over the amount attributable to fixed assets and

inventories, if any, may be considered "goodwill" for tax purposes, which is not depreciable. By special agreement with the tax authorities, it may be possible to consider the balance as being the cost of the franchise or license, or the exclusivity privilege, and writing this off for tax purposes over the life of either one.

c. Exemption

The investor may not consider a total exemption from tax as a valuable benefit, since under double taxation relief the profits made by the investor will ultimately be taxed in its home jurisdiction with a credit being allowed within limits for the tax paid in Pakistan. The GOP should seek to optimize its benefits from the privatization by ensuring that tax revenues are not effectively transferred needlessly to another jurisdiction through the granting of reliefs that do not ultimately benefit the investor.

J. Impact of Capital Investment Program

While the current capital investment program being undertaken by the GOP will result in an expansion of telephone services and fulfill public expectations, consideration should be given to the impact of the proposed BLT schemes on the privatization process. A potential investor could view them as being incompatible with its plans for the company after privatization and may be unwilling to take on their financing and supervision. This could limit the GOP's bargaining power with the investor and reduce the purchase price.

K. Public Relations

The privatization of a major profitable undertaking to a foreign shareholder will give rise to opposition, much of which will be sincere. The nature and timing of the public relations activities will have to be carefully planned. The logical explanation of the sale should be explained at the same time that the opening of the opportunity to the general public for purchasing shares is announced, as logic alone will not "sell" the concept. Public relations (except for "damage control") should not begin until after the foreign investor is legally committed to make the purchase as to do otherwise might serve to weaken the GOP's negotiating position or else raise expectations beyond the ability to deliver.

V. CONCLUSIONS AND RECOMMENDATIONS

Based on our findings described previously in Sections III through IV, we have developed the following conclusions and recommendations with respect to the priority issues:

A. Choice of An Appropriate Transaction Structure

**Conclusion:** The current structure of the PTC, proposed under the PTC Ordinance, is inappropriate for the privatization of the company.

Based on our review of the PTC Ordinance, we have concluded that the entity as presently constituted will not serve the purpose of bringing about meaningful commercialization or privatization. This observation should not be viewed as a criticism of the introduction of the Ordinance. On the contrary, it has provided the PTC privatization process with a significant boost by establishing a needed structure to initiate the process. However, the weaknesses are such that the present legal status of PTC should represent only a very temporary phase in the process leading to privatization. Our meetings with representatives of the GOP have indicated that this structure can be easily changed in the event of a privatization.

**Recommendation:** Sell Shares in a New Entity Containing PTC Assets

It would be far simpler and less costly to have the existing entity transfer only its productive assets (fixed assets and inventories) to a new entity under general legislation, free and clear of all liabilities, on a basis negotiated with the successful investor. The purchase price for the assets could be determined on the basis of their earnings potential if this is higher than the appraised depreciated replacement cost, and payment would be made to the existing entity (which is wholly-owned by the GOP). The existing entity would continue to collect receivables and deal with its liabilities existing just prior to the asset sale, and eventually that company would be liquidated with the net proceeds payable to the GOP. Under this alternative:

- the need for an audit is avoided;
- investors will have more flexibility;
- the GOP would not have to sacrifice a reduction in realizing asset values through negotiation and there would be a significant time saving.

It is therefore our recommendation that the present entity continue to hold the assets only for the time required whilst:

- the assets and the business are being valued;
- the regulatory and ratemaking process desired is decided upon; and
- the terms of the investment are being agreed, up until the agreement for participation is executed, at which time the assets would then be transferred to the new entity.

The steps that would be undertaken in structuring a new PTC entity: are described in Exhibit 3.

**Exhibit 3**

**SELLING SHARES IN NEW PTC ENTITY**

- ◆ *Investor puts cash into the New PTC*
- ◆ *GOP puts assets into the New PTC*
- ◆ *New PTC issues shares to both the Investor and the GOP*
- ◆ *New PTC buys assets with cash from Old PTC*
- ◆ *Old PTC realizes leftover assets*
- ◆ *Old PTC liquidated and proceeds go to GOP*

B. The Need for An Audit

**Conclusion:** Attempts to correct the state of the balance sheet and accounts would delay the privatization of the PTC even further and result in a waste of resources.

As discussed in the previous section, the company's 1990 financial statements raise questions about the state of the company's accounts and the credibility of the financial data published by the company. Attempts to change the current status would require significant expenditures of time and money which could be wasted once the company is privatized. Moreover, purchasers of privatized companies are more interested in the opportunities for future expansion and profitability rather than historical financial data since the future profitability of PTC will be determined by the structure of the regulatory framework and the ratemaking process established by the GOP rather than historical performance. For this reason, efforts to correct the current state of the company's accounts could prove to be wasted, if it is agreed that an asset sale is the preferred route to privatization. However existing PTC accounts would still provide valuable cost data to be used in financial projections connected to the sale.

**Recommendation:** Perform an asset valuation instead of an audit.

We understand that plant accounting records are not adequate and that annual valuations by the Auditor General are done with reference to the capacity of the system and published replacement cost data. We propose that a private sector specialist in this area should perform the equipment and distribution system valuation with a real estate valuation specialist performing the valuation of properties.

C. The Need For Further Restructuring Prior to Privatization

**Conclusion:** Restructuring of the PTC prior to privatization is not necessary or advisable.

We note that the terms of reference drafted by the MOC do not call for the restructuring of the internal organization and commercialization of PTC prior to privatization (as called for in the plan submitted by the earlier consultants) and we support this departure. This phase is not, in our opinion, a prerequisite to achieving the privatization in a manner which is above reproach. It is our experience that commercialization phases seldom improve the performance of state-owned enterprises to a significant extent in a reasonable time frame and, since potential investors will base their offers on assumptions of efficiency improvements under their managements rather than upon historical performance, it is by no means a given

that the proceeds obtainable by the GOP will be adversely affected, especially in a competitive bidding environment, by the omission of this phase prior to privatization.

**Recommendation:** Commercialization and restructuring of the Corporation should be left to the purchaser.

Under our alternative plan, this would be left to the investor within such parameters as the GOP may impose such as retention of the workforce for a specified period, which also can be contained in the shareholders' agreement. It is obviously in the investor's interest to ensure that the management practices and systems are compatible with a private sector environment.

D. The Development of Telecommunications Policy

**Conclusion:** The determination of a telecommunications policy is essential for the attraction of investors and to preserve the public interest. However, the policy should be flexible to allow for input from the investor as part of the negotiation process.

The development of a sound but flexible policy that contains clear definitions of the GOP's positions on issues discussed previously must be in place before the investor search and bidding process can begin. However, allowances must be made for input from the investor as part of the negotiation process in the finalization of this policy as investors could be discouraged if presented with policy under which they are expected to operate and into which they have had no input.

**Recommendation:** Develop a focused policy statement immediately which can form the basis for negotiation of the detailed conditions of investor participation in the industry and be incorporated into a shareholders' agreement.

By the terms of the shareholders agreement, the GOP would be obliged at a later date to grant a license and implement the legal and institutional framework in accordance with the terms of the shareholders agreement after which time the agreement would cease to have effect. In the interim, both the GOP and the investor will have the protection of the shareholders' agreement which would be an agreement between the investor and the GOP detailing the rights, duties and obligations of both the parties and the principles with which to be complied. This is much quicker than preparing the License and institutional and legal framework beforehand. Furthermore, by not defining the details and by leaving room for negotiation, there will be more investor interest.

An illustration of the type of policy statement we envision is as follows:

**Ownership of the Industry**

There are no restrictions on persons or classes of persons who may own licensed telecommunications facilities in Pakistan.

**Policy on Regulation and Ratemaking**

The GOP will regulate the telecommunications industry through a Regulation Division of the MOC which will be headed by a Director General who will report to the Secretary. The Division will have access to experts qualified in the areas of utility economics, law, financial and investment analysis and telecommunications technology, on either or both permanent and ad-hoc bases, as needs may dictate from time to time. The appointment of the Director General will be made by \_\_\_\_\_, for a period of \_\_\_ years which is renewable. The appointment may be terminated at any time for cause. The Division will be funded by \_\_\_\_\_. The Duties of the Division will be to:

Review and monitor rates in accordance with ratemaking formulae and inform the Secretary from time to time whether rates are consistent with the formulae, and of the action which may or must be taken under the terms of agreements, licenses or franchises applicable to the suppliers of telecommunications services in defined circumstances.

Monitor compliance with qualitative aspects of agreements, licenses or franchises and inform the Secretary of breaches and remedies available, or of agreed GOP obligations.

Recommend the issuance of licenses within the scope of the Telegraph Act.

Rates will be set by the application of a "price-cap" approach which will be reviewed at appropriate intervals sufficiently lengthy to encourage the utility to operate efficiently whilst being sufficiently frequent to recognize fundamental shifts in the economic and technological environments. Rate reviews must result in the fixing of periodic base rates which provide investors with appropriate rates of return within a reasonable time, with adequate provision being made in arrangements with operators for recourse to timely judicial

processes in the event of unresolved disputes at the level of the Ministry.

Basic domestic and international telecommunications services shall, for the time being, be provided by a single entity under an exclusive Federal license which will be granted for an appropriate period. Fair notice will be given and compensation agreed if GOP does not intend to renew a License upon its expiration.

Standards relating to quality of service, interconnection arrangements, radio-frequency spectrum control, accounting principles and systems and the monitoring thereof will be set in accordance with international norms and practices as outlined in \_\_\_\_ and \_\_\_\_.

E. The Development of the Institutional and Legal Framework for Implementing Privatization

**Conclusion:** Although the implementation of a regulatory and legal framework prior to privatization is ideal, it is not key to marketing the company to potential investors or needed to preserve the public interest.

Under ideal conditions, the implementation of a regulatory framework which would include the training and staffing of a regulatory body should be completed before the sale of the company. However, while we do not believe that it will be possible to implement a regulatory framework within the timeframe envisioned by the GOP, we do believe it is mandatory to agree and define, with sufficient clarity, what the shape of the framework will be, so as to enable privatization to take place prior to the drafting and passage of the applicable legislation. The establishment and installation of the framework after the sale would include the staffing and training of institutional personnel.

**Recommendation:** Having developed a firm regulatory policy prior to privatization, implement the policy during the post-privatization period.

The establishment of a fully-fledged regulatory framework and ratemaking process is a medium-term proposition which it has been estimated will take some two years to put in place. In Appendix B we provide a discussion of the key issues involved and we make some preliminary recommendations based on the merits of the alternatives. It is nevertheless vital for investors to have immediate assurance as to at least:

- any period of exclusivity in the provision of specified services;

- the nature of the service obligations;
- the manner in which rates will be set; and
- remedies in the event of nonperformance by either Government or the investor.

Additionally the GOP should have decided on its preferences in respect to the above and other matters, all of which can be dealt with in principle in the policy statement, with the details left for negotiations with the investor.

We suggest that whilst the GOP should have the goal of implementing an appropriate ratemaking and regulatory system, it may be possible to proceed immediately to the next phase of privatization by incorporating the above points into a shareholders' agreement with a prospective investor following a process of competitive bidding. The bidding would be in respect to the conditions sought by applicants, all else (eg. the technical and financial strength of the bidders) being equal, where the applicant combining a request for the least onerous terms (or those closest to being compatible with the GOP's favored policy options) and the best financial offer, would be successful.

Appendix B contains a discussion of the key issues involved in deciding on the appropriate regulatory and ratemaking process and we make some preliminary recommendations based on the merits of the alternatives. This Appendix, combined with the recent exposure of a team of officials of the MOC to regulatory procedures in the United Kingdom, the United States and Mexico, may provide a sufficient basis for deciding early on the preferred regulatory framework and ratemaking process. From our experience as transaction implementers, however, we would stress that the key features of an appropriate regulatory framework, in the context of privatization are:

- it must promote financial stability and viability for the utility;
- consumer interests must be protected;
- there must be incentives for efficient operations and management;
- the process must be relatively free from political intervention; and
- there must be provision for "expert" regulation.

F. The Nature of the Investor

**Conclusions:** An Investor with expertise in the industry rather than passive investors should be sought.

A passive large scale investor combined with an operator under a management contract may be too tenuous an arrangement for the size of the investment. However, managers cannot "walk away" from the situation if they also have a significant investment in the project.

The privatization of the PTC provides a unique opportunity for strengthening the capital markets in Pakistan.

This privatization provides a unique opportunity for Pakistan to:

- perhaps double the market capitalization of the Karachi Stock Exchange (this would attract international institutional investor interest);
- widening ownership in the assets in the country by citizens (a properly handled offer could attract a million new investors to the market);
- furthering employee share ownership;
- popularizing privatization; and
- demonstrating commitment and bolstering investor confidence.

An assessment of the capacity of, first, employees then telephone company customers, the public at large and local financial institutions to take up an offer of PTC shares should be done and any residual shares available for sale by the GOP can be offered to foreign institutional investors simultaneously with the local offer.

Appendix C contains an explanation of the mechanics of a popular share offer based on the methodology we have developed and tested on several occasions in developing countries.

**Recommendation:** In Stage A of the privatization program, seek an investor in the telecommunications industry.

The GOP has already initiated contacts with potential investors. The plan we have proposed

whereby only broad policy parameters are set prior to negotiation instead of the implementation of the entire framework, should be tested on investors prior to formally soliciting their proposals.

**Recommendation:** In Stage B, encourage the maximum involvement of a wide range of investors to stimulate the strengthening of the domestic capital markets.

This plan envisages a two-staged privatization process whereby in Stage A, a major telephone utility will make an investment in respect of the existing undertaking by injecting cash into a new entity incorporated under general legislation, which would buy the productive assets from the existing PTC. The public offer would constitute Stage B of the plan. Illustrative terms of the share offer and results are shown in Appendices IV and V.

G. Continued GOP Participation

**Conclusion:** The stated purpose of the GOP residual holding of 49 percent is not achievable and a lower retention of sales to foreign investors should be considered.

The purpose of the retention, as stated in the pre-bidding meeting, was to sell the residual shares to the employees and to the public. Based on available information (see Appendix E), this could be too ambitious for the local market. We recommend that the portion retained by the GOP in the interim should be less, or the public offer should be expanded to include foreign investors.

**Recommendation:** Retain a smaller stake and also have a private placement to foreign investors and institutions.

It would be desirable to introduce Pakistan to international institutional investors, if possible. However, the amount to be raised on the international markets should not be so large as to result in failure. The GOP should consider retaining a share amount of about thirty-five percent.

H. Implications for the Employees

**Conclusion:** The GOP should not place onerous requirements on purchasers to maintain current workforce.

The current intention of the GOP to require that the prospective purchaser of the PTC maintain the workforce following the sale of the Company could be a significant disincentive

to attracting potential investors, as they face the prospect of dealing with an unsettled labor force with potential termination liabilities. While this requirement is understandable as a means of reducing the negative impacts of the sale on the laborforce, it reduces the flexibility available to the investor in managing the company, and to the GOP in negotiating a successful sale.

**Recommendation:** Ideally, the GOP should terminate PTC employees and allow the investor to rehire those it wishes.

Even though the GOP believes that excess PTC employees will be absorbed by the expansion of the system, or removed through normal attrition, the requirement of maintaining the labor force may prove to be discouraging to potential investors. At worst, the GOP should consider placing a time limit, probably one year, on the retention of the laborforce and indemnify the investor against termination payments.

I. Taxation

**Conclusions:** The tax issues must be carefully examined in respect of the allocation of the purchase price and it may be desirable to make certain agreements with the tax authorities before negotiations commence.

Tax exemptions may not be of real value to the investor and may needlessly result in a transfer of revenues to the investor's home jurisdiction.

**Recommendations:** The GOP should seek the Commissioner's agreement that the excess of the purchase price over the asset valuation can be amortized for tax purposes.

Any concession should be structured in such a way that they are both of value to the investor and provide revenue to the GOP within the rules of the tax treaties.

Particular care should be taken to avoid the treaty partner from regarding any "half-way" arrangements as constituting a "soak up" tax.

J. Impact of Capital Investment Program

**Conclusion:** Current BLT arrangements may prove to be discouraging to potential buyers.

While the current BLT arrangements being pursued by the GOP are an important part of its action plan, we believe that the impact of the completion of such agreements prior to privatization will make the process more difficult and result in a discount to the selling price that could otherwise be obtained. The existence of the BLT schemes on the company will expand the "due diligence" efforts needed by the potential investors in the entity. The number of potential investors might be fewer and therefore the competitiveness of the bidding might be less than optimal if some regard the existence of the BLT schemes as representing:

- the loss of potential post-privatization synergistic benefits to themselves; and
- a less than ideal or compatible technical interconnection to the type of network contemplated in the investor's own medium term development plan.

**Recommendation:** Test the reaction of investors to the BLT projects and then decide whether to defer their implementation, and regard the BLT projects as a "fall-back" position in the event that the PTC privatization is not successfully negotiated.

This could be done in a short space of time and a decision can then be made as to whether the BLT projects should be activated.

K. Additional Issues

The following are overall recommendations which do not relate to any specific issue, but also should be considered.

- Current scopes of work developed by the GOP should be modified to reflect recommendations.

If the changes we have recommended in the PTC privatization process are accepted, modifications to the current terms of reference will be needed. The modification we recommend is that the requirement for advisory services covered by the current terms of references A and B described previously can be reduced to the provision action-oriented

services required to implement privatization. There is still a need for technical assistance in implementing the regulatory framework. However, we do not consider this letter as being on the "critical path" as long as a license or shareholders' agreement is in place based on the policy and negotiations.

In Appendix F, we set out an overview of the scope of work and the skills needed.

- Develop a new timeframe for the privatization of PTC.

We recommend that, following the decision by the GOP as to the desirable policy framework including regulation and rate making, and following the decision as to the most desirable transaction structure (Phase I), these decisions should be published in qualitative terms and potential investors who are operators of telecommunications facilities should be invited to submit investment proposals (Phase II). These proposals will be evaluated, and negotiations will be conducted with those whose proposals most closely match the GOP's policy preference and financial expectations, and one will be selected (Phase III). Following the execution of the shareholders' agreement and the payment of the proceeds (Phase IV) the operator will commercialize the operations and begin a development program whilst the GOP will implement the regulatory framework in accordance with the principles set out in the shareholders' agreement (Phase V). In the final Phase, Phase VI, a public share offer will be made which will give priority to employees, customers and small applications and which will seek to attract the largest possible number of investors. Appendix G contains our recommendation for a new timetable.

#### C. USAID's Role in the Privatization of the PTC

Our assessment of the current status of the privatization of the PTC and the GOP's proposed plans for the future has led us to the conclusion that every attempt should be made to combine the advisory work related to the privatization transaction and the implementation of the legal and regulatory framework. Placing these functions under the control of one overall advisor will reduce any problems related to coordination or other potential conflicts that may arise and ensure a smooth and successful privatization process.

We suggest that USAID's role be one that supports and promotes this advisory structure and that USAID funds be used to finance both the privatization transaction advisory work and the advisory work relating to the implementation of the legal and institutional framework. This funding should be made available through one contract for both activities.



**REVIEW OF THE**  
**PAKISTAN TELECOMMUNICATIONS CORPORATION ORDINANCE**

The following aspects of the Pakistan Telecommunications Corporation Ordinance appear to us to militate against the achievement of meaningful commercialization or privatization for PTC as an entity, as opposed to an asset sale:

A. ANTI-COMMERCIALIZATION FEATURES

1. The Tenure of Directors is Only Three Years.

Section 4 (5) limits the term of directors to three years with no provision for their eligibility for reappointment. Such continuity is only accorded to the Chairman (section 4 (6)) who is also the chief executive (section 4 (4)).

2. The Chairman is also the Chief Executive.

The combination of the function of Chairman and Chief Executive has proven time and again in commerce to create the potential for abuse of power and lack of accountability, with the power to withhold information being as potent as the power of being the only repository of all information about the Corporation. Additionally, the internal auditor will report only to the Chairman (section 19), although he is required to pass all internal audit reports on to the Board. This danger of abuse is particularly acute given the fact, as noted above, that only the Chairman's tenure on the Board is indefinite (section 4 (6)), whilst the terms of the other directors are not renewable after three years (section 4 (5)).

3. The Mission of the Enterprise is not Clear.

Under section 6 (2), the company is required to "have regard" to (i) the improvement and development of its operating systems, (ii) technological developments (iii) efficiency and economy and "(iv) commercial viability and social benefits". The last item in particular provides management with a ready-made excuse for less than profitable operations.

Moreover, section 6 (4) gives Government the power to micromanage the enterprise at will for political purposes without regard to the opinion of the Board or the existence of any prior mission statement within or without the Ordinance.

4. The Entity Cannot Go Bankrupt Despite Willful Non-Payment of Obligations.

Section 24 prohibits a winding-up unless it is initiated by the Government. This may enable

the Corporation to act irresponsibly in regard to its creditors, and may even militate against its creditworthiness in terms of long-term finance.

5. Monopolistic Behavior is Encouraged.

Under the terms of the Ordinance, the Board of Directors is responsible for setting the rate (albeit with the requirement of government approval), thus encouraging monopolistic behavior.

6. The Corporation Will Have an Unfair Advantage in the Capital Markets.

The Corporation is exempt from taxes for three years. Although this might be perceived as a necessary inducement to attract investment, it might well be an unnecessary sacrifice by the Pakistan Treasury on behalf of the treasuries of the investors' countries. Even if there are no tax treaties, the operation of foreign tax credits by many investor countries would preclude double taxation of profits, thus rendering a tax in Pakistan harmless and, if the income is not taxed in Pakistan it will in all likelihood be taxed in the investor's country.

In terms of local investors, the tax concession would serve to artificially induce investment funds to the Corporation, away from projects of equal or better economic merit.

B. ANTI-PRIVATIZATION FEATURES

1. Private Shareholders do not Appear to be Protected by Limited Liability.

Although the Chairman, the Directors and employees are indemnified explicitly through section 10, and the Government is expressly granted limited liability status in section 15, no similar protection exists in the Ordinance for the benefit of private investors and nothing in the Ordinance states that the Corporation has limited liability.

2. The Government "Only and Forever" has The Power to Appoint The Chairman.

Section 4 (2) indicates that, regardless of whether or not there is majority private sector interest in the entity, the Chairman will always be appointed by Government.

3. Investor Representation on The Board is not Necessarily Proportionate to Investment.

Section 4 (3) indicates that it is the Government that will determine the extent of private shareholder representation on the Board, and the implication, in the absence of any words to the contrary, is that Government will retain this power which could be exercised from time

to time, not just at the time that an investment is made.

4. The Government has the Power to Appoint the Chief Executive and Set His Remuneration.

Under section 4 (4), the Chairman shall be a whole-time officer and the chief executive, and the Government will determine the terms of his employment. This is apparently the case regardless of the level of private investment in the entity.

5. Large Foreign and Local Investors Are Exposed to Dilution At Any Time.

Under section 12 (4), the Government can authorize the Corporation to issue additional shares to itself or the "general public" at any time. As earlier indicated, Government can, under the Ordinance, direct the Corporation to do anything it wishes. However it is unclear whether the Government can authorize the issue of additional shares to other investors not deemed to be the general public and, even if it can, such other investors would be under a perpetual threat that their interests might be diluted. There is no requirement for the new shares to be issued at a price and on terms reflecting their value.

## REGULATORY POLICY IN THE PAKISTAN TELECOMMUNICATIONS SECTOR

### A. Introduction

The regulatory structure and policies imposed on the telecommunications sector will affect the privatization process of the PTC in two ways. First, the regulatory structure will affect the financial viability and credit worthiness of the PTC. Second, the regulatory structure will also affect their ability to attract capital and talented employees.

The purpose of this section of the report is to answer the following questions:

- what is the best institutional structure for regulation in the Pakistan telecommunications sector?
- which regulatory mechanism best achieves the conflicting goals of an optimal regulatory policy within the sector?

With regard to the first question concerning institutional relationships, we will focus on the regulatory and ratemaking body of the sector. Specifically, we will discuss the advantages and disadvantages of maintaining the current situation where sector rates are determined by the Ministry of Communications (MOC), as presently constituted, as well as the alternative of revising the legal and institutional framework to form a more independent Commission to interpret and execute the policies established by the GOP. With regard to the second question regarding rate setting methodologies, we will discuss a range of alternatives from strict rate of return approaches, as used in the U.S., to price cap formula approaches that evolved in the U.K. and are increasingly being used in the U.S. After describing each of these alternatives in the two areas of institutional structures and regulatory mechanisms, we will provide our recommended approaches for the Pakistan telecommunications sector.

### B. Evaluative Criteria

Before developing specific alternatives in these areas, it is useful to formulate the criteria upon which to judge the relative advantages and disadvantages of the various options. The specific criteria we will use to evaluate these alternatives include the following:

- Will the institutional structure or rate setting mechanism promote financial stability and viability for the PTC? Because one of the primary goals in the privatization process is to develop an environment conducive to credit worthiness and attractiveness as an employer, the extent to which the regulatory structure and mechanisms foster this environment should be of prime concern to both the Government and the sector. It is imperative that management perceives that they will be able to earn a fair rate of return if they

manage their operations properly.

- Will the regulatory structure protect consumer interest in a commercialized environment? While ensuring financial viability is important, it will not be politically feasible to develop a regulatory mechanism which ignores consumer interest. The regulatory framework must guard against both excessive price levels (and associated excessive profit levels) as well as cross subsidies in the tariff that would harm specific consumer groups or distort economic realities and lead to inappropriate decision making by the productive sector and domestic users.
- Will the regulatory framework provide sufficient incentives for efficient operations, management, and network investment? Different forms of regulation provide varying degrees of incentives for efficiency. The optimal framework encourages efficient operations while protecting consumer interest and promoting financial viability. Additionally, the regulatory structure should provide the ability to guide infrastructure development toward pre-set goals.
- Will the ratemaking process be relatively free from political intervention? While the Government must have a voice in the ratemaking process, it is important from the standpoint of the privatization process, as well as economic efficiency considerations, that the process be insulated from excessive political influence. Excessive political influence can be characterized by the creation of cross-subsidies to favour particular interest groups or similar intervention that may not be consistent with commercial and economic criteria.

Thus, we make the distinction throughout our discussion between governmental influence, which can be considered positive, and political influence, which is considered negative.

- Will the regulatory framework provide "expert" regulation? It is important that officials responsible for developing rates for the PTC be familiar with operations and financial conditions in the telecommunications sector. It is difficult to formulate sound regulatory policies and tariffs if this expertise is absent in the regulatory body.
- Is the regulatory framework appropriate for the structure of the market? Market competition is generally considered to be the most efficient form of regulation in that appropriate incentives exist automatically. Formal regulatory systems must be implemented when competition is insufficient to lead to optimal decisions by a monopolistic enterprise. Because different markets within the telecommunications industry may have differing levels of competition, a regulatory framework must be sufficiently flexible to continuously monitor and address market structure issues.

We will use these criteria to evaluate each of the various alternatives for the institutional structure and specific price-setting policies for the Pakistan telecommunications sector below.

### **C. Institutional Structures for Regulation**

From our discussions with government officials combined with our experiences in numerous other countries, we have developed two primary options for the institutional structure of regulation after privatization:

- formalize a ratemaking department within the MOC that would actively carry out tariff policies put forward by the GOP;
- establish a Commission outside of the MOC that would have a degree of independence in carrying out a telecommunications regulatory policy;

An enhancement to these two options is to set rates for a commercialized telecommunications service sector according to a pre-determined formula, such as an established rate of return or price cap. If such a formula is used, then the need for any ratemaking body at all is reduced (though not eliminated). Specific formulas and mechanisms that can be used will be discussed in Section D.

We will analyze the advantages and disadvantages of these options, as well as the potential impacts on the privatization process, in the following discussion.

#### **1. Regulation Through the Ministry of Communications**

Under this option, a privatized PTC would petition the Ministry of Communications for rate increases. Depending on the actual mechanism used to set rates, the Ministry would review the filing and allow or disallow the request. The Company would have recourse to dispute the findings of the Ministry through the Pakistan legal system. Potential for legal recourse or arbitration and the enhanced need to codify the standards and process by which rates are determined are the primary differences between the current environment and the privatized environment.

There are several potential advantages to continued regulation by a Ministry. First, if the specific regulatory mechanism used to set prices is relatively simple and does not require detailed scrutiny of PTC's operations or management (for example, price caps or specified rate of return), then the monitoring of PTC would be relatively simple and could be effectively performed by the Ministry. In addition, regulation directly through a Government Ministry instead of indirectly through a separate body with weaker ties to the Government would allow the Ministry maximum control over the ratemaking decision. The first option would allow the Government to reflect its social goals through the rate structure most effectively.

There are several disadvantages with this arrangement, however, that reduce its desirability when considering the privatization process. First, while Government participation in the ratemaking process could be constructive, excessive political influence on the process is generally not a desirable situation. Political pressure may create incentives and opportunities for cross-subsidies that benefit one particular group of customers over another. Furthermore, political influence may tend to delay rate increases when needed, thus affecting the financial viability of the Company and decreasing its attractiveness to potential private investors.

These problems would be exacerbated if the regulatory mechanism used to set rates involves close regulatory scrutiny of the Company's costs, operations, and financial decisions. Generally, increasing the complexity of the ratemaking process provides more opportunities for highly political judgements.

As we discuss in Section D, some mechanisms (e.g., rate base/rate of return as practiced in the U.S.) require detailed investigations by the regulatory body into telephone company's financial results and costs, creating the potential for re-allocating those costs to suit special political interests, as well as the potential for general political abuse of the ratemaking process. To guard against these potential abuses, regulatory agencies in the U.S. generally operate at arm's length from state and Federal legislatures. Although these arrangements do not eliminate the potential for excessive political influence in the process entirely, they do mitigate its effects somewhat.

## **2. Regulation Through a Separate Body**

Establishing a separate regulatory body operating at arm's length from the Government for regulating Pakistan's telecommunications service sector is an alternative to the more centralized option put forward above. A Public Communications Commission (PCC) would most likely be comprised of officials elected or appointed for a specified term with several staff members assisting in the analyses and monitoring of the utilities' activities and financial performance. The MOC would assume a diminished role in regulatory matters, but would continue to function as the government's liaison with the regulated industry.

The costs of the PCC and its staff, as well as the administrative costs of complying with regulatory requirements, would be the responsibility of PTC, but would be recoverable through its rates as an operating expense, depending on the type of regulatory mechanism employed.

This type of regulatory structure mitigates several of the problems with the first opinion considered above. Although the potential for excessive political influence in the ratemaking process is certainly not eliminated under this opinion, it can be greatly reduced by appointing regulators rather than electing them and by providing for relatively long terms in office. This type of institutional structure also allows regulators to develop detailed expertise more readily than if they had other ministerial duties.

The principal drawbacks of this option, however, revolve around the reduced ability of the Government to influence the ratemaking process in a constructive way. Obviously, direct regulation by the Ministry of Communications would allow the Government to easily reflect its social objectives through the rate structure. However, as we argue below, the possibility that this influence would be abused by excessive political intervention in the process most likely outweighs the benefits associated with constructive governmental input. Furthermore, a separate regulatory body would still effectively be able to protect consumer interests.

A proposed PCC style of regulation generally causes some debate over the costs of this type of regulation. Therefore, some parties within Pakistan may be reluctant to establish a separate regulatory commission because of the perceived high administrative costs. However, apparent high costs can be at least partially linked to the type of regulatory mechanism used for PTC. For example, rate base/rate of return-style regulation can be fairly costly in absolute terms. However, if approaches that do not require extensive analysis of the Company's operating and financial performance--such as a pre-described rate of return on equity ceiling or "price caps"--are used, these monitoring and analysis costs can be greatly reduced.

Furthermore, PCC-style regulation shifts the cost of regulation from the GOP to the PTC. These costs will be relatively small compared to the overall revenue requirements for the Company.

### 3. Impact on the Privatization Process

From the standpoint of the privatization process, it is important to consider the criteria developed above in analyzing alternative institutional structures for regulation. These criteria can be restated and evaluated as follows:

- Does the institutional structure promote financial stability for a privatized PTC? Conceptually, neither option precludes or negatively effects financial stability for the company. However, in practice, it is a common perception that a regulatory body separate from the direct control of a Ministry will be better able to balance the competing objectives of consumer versus company interests, thus creating an environment more conducive to financial viability and stability.
- Will the institutional structure protect consumer interest in a privatized environment? Again, neither option is inherently more adept at satisfying this criteria, Direct control by the Ministry, however, may allow the government to implement its policy objectives more effectively.
- Does the institutional structure provide sufficient incentives for efficient operations, management, and network investment? Neither structure is inherently more suitable at ensuring this goal. This criteria will be met through the specific regulatory mechanism used by the regulators, as discussed in the following section.

- Will the ratemaking process be relatively free from political intervention? Although the establishment of a separate regulatory body does not necessarily eliminate the possibility to excessive political intervention, it tends to mitigate this potential relative to continued control by the Ministry.
- Will the institutional structure provide "expert" regulation? By establishing a separate body, the second option allows the regulators to focus only on regulatory matters facing the telecommunications industry, thus allowing them to develop a relatively high level of expertise.
- Is the regulatory framework appropriate for the structure of the market? Appropriateness of the regulatory framework to the market structure is ultimately dependent on the ratemaking mechanism and not the regulatory body.

If the Government wishes to develop an environment conducive to the successful privatization of PTC, then it must create a perception among potential investors that rates will be set fairly without excessive political intervention. Furthermore, they must perceive that they can earn a fair return if PTC is managed and operated efficiently. In this context, the establishment of a regulatory body that is separate from the general government will best foster these perceptions on the part of potential investors. Although this arrangement does not eliminate the possibility of political intervention in the ratemaking process, the experiences of other countries suggests that it reduces this potential greatly, and thus is the preferable option from the standpoint of privatization.

The World Bank Consultants who have reviewed these options hold strongly to the view that an independent commission with disinterested third parties is not practiced in Pakistan. They also feel that private investors would be comfortable with regulation by the MOC once rates are set with reference to objective criteria. We suggest that conclusions regarding a regulatory institutional structure be deferred until investor reaction to this issue can be assessed.

#### **D. Ratemaking Mechanisms**

Up to this point we have concentrated on the institutional structures for regulating a privatized PTC. We now turn our focus to the specific ratemaking mechanisms that might be employed, whether from the Ministry of Communications or a separate regulatory body. Specifically, we will analyze the relative advantages and disadvantages of the following options for the ratemaking mechanism:

- strict rate base/rate of return regulation (as practiced in U.S. for some Local Exchange Carriers);
- rate of return benchmark;

- price cap formula (as implemented in the privatized U.K. telecommunications industry and in the U.S. long distance services).

These advantage and disadvantages are developed in detail below. As with our previous discussion of institutional structures, we will supplement our analysis with references to the experiences of telecommunications firms in other countries and their relevance to a privatized telecommunications industry.

### **1. Strict Rate Base/Rate of Return Approach**

The first option available for regulating a privatized PTC is strict rate base/rate of return (ROR) regulation. This approach to ratemaking has been used extensively in the U.S. local telecommunications industry. In the following discussion, we will illustrate the important characteristics of strict ROR regulation in the context of its use in the United States. In subsequent sections we will discuss the advantages and disadvantages of ROR for regulating the PTC in a privatized environment.

Strict rate base/rate of return regulation has several major components:

- identification of the appropriate period for analyzing the telecommunications company's costs;
- determination of the appropriate rate base;
- identification of allowable expenses and projected revenues;
- estimation of the cost of capital;
- calculation of the revenue requirement by product lines;
- projection of demand volumes;
- assignment of revenue requirement to specific product groups based on cost of service study.

In the U.S., each of these steps is generally conducted by the telephone company, which then files for a rate increase with its state public utility regulatory commission (PUC), including these studies in the filing. The studies' approaches, results and conclusions are contested by various consumer groups and other affected parties in a quasi-legal hearing before the PUC.

Perhaps the most controversial aspect of these hearings is the decision of what network investment costs should be included in the rate base. This rate base represents the pool of assets owned by the investors of the telephone company which are used to provide service and for which the commission must set the rate of return.

When a telecommunications company in the U.S. decides to upgrade switching equipment, it must first obtain approval that the new equipment is necessary to current and future service to consumers. Specific justifications for network investment include capacity expansion, technology upgrades, service quality maintenance, and cost containment. Once the investment has been approved, the regulatory commission frequently reviews the utility's

demand forecasts and network investment plans, either through the requirements for periodic review or through a special hearing, normally begun pursuant to a Notice of Inquiry.

Recommendations to management made by the commission at this stage are usually advisory, but are taken seriously due to the regulator's authority, upon completion of the project to determine whether the costs associated with the investment should be included in the rate base.

Although the possibility that regulators will disallow network development costs from the rate base is a significant risk to a telecommunications company and its investors, this risk is minimized by mandatory filing of long term investment plans with the commission. Negotiating investment programs and cost recovery in general terms before specific projects are undertaken limits the regulatory risk of network investment.

Regulators frequently request post implementation data (e.g., costs, service quality performance indicators, capacity and capacity utilization) to determine whether an investment met its objective. The extent to which network upgrades have met their objectives may influence how much of their costs are included in the rate base as well as how regulators view subsequent projects.

There are three major disadvantages associated with the use of rate of return regulation:

- Significant risks to utilities
- Biases in input planning
- Insufficient incentives for cost containment

The greatest risks to telecommunications companies subject to rate of return regulation are financial risks. The ratemaking process under rate of return regulation is a lengthy process, during which market conditions (such as demand) may change. New rates may be outdated by time they are approved. Additionally, a company lacking sufficient rate flexibility becomes a handicapped competitor as market competition increases. Finally, the allowed return is not determined until the end of a financial reporting period, during which rates have already been charged. If the earned return exceeds the allowed return, the company must refund the excess, but if revenues fall short of the allowed return, there is no opportunity to make up the difference. This risk, which is particularly important less predictable markets, provides an incentive for utilities to overstate their rates and prolongs the ratemaking process.

Academic critiques of rate of return regulation have focused on the potential for regulation to distort the input choices of utilities. Averch and Johnson, for example, demonstrated that utilities will tend to use excessive amounts of capital (relative to labor) when their authorized rate or return exceeds their cost of capital. The incentive to use excess capital is known as the "A-J effect." Since the firm can earn additional profits by increasing its level of capital investment, it will have an incentive to invest in projects even though, individually, they may

not pass normal investment planning criteria. This effect was expected to take the form of excessive reserve margins, reliance on capital-intensive technology, and general "gold-plating".

Recent analysis, however, has focused on a potential reversal of the "A-J" effect. Empirical evidence suggests that rates of return generally do not exceed companies' costs of capital, thus producing a bias away from capital investment. There are two explanations for rates of return falling short of capital costs. First, regulatory delay and general pressure for regulators to minimize rate increases have produced caution in setting returns. Authorized rates of return are carefully scrutinized during rate proceedings and there is no observed tendency to authorize a return greater than the cost of capital. Second, utilities have had particular difficulty in actually earning the rates of return that they are authorized. This was frequently observed during the inflationary period of the 1970s and the years in the early 1980s when interest rates were rising.

A final problem with rate of return regulation is that it may not give adequate incentive for cost minimizing and adoption of practices that improve the financial health of the organization.

For example, it has been argued that utilities regulated under strict ROR mechanisms tend to pay excessive salaries to their employees because rate of return regulation ensures the recovery of such costs. Only in the event that a management review found that costs were excessive would a penalty be imposed. More importantly, there is little reward for minimizing costs; all such savings are normally passed on to the telecommunications company customers.

As the preceding discussion indicates, strict ROR regulation, as practiced in the U.S., is a very complex form of price control. Although it is generally recognized as an effective method of controlling excessive monopoly prices and profits, the associated effects on the regulated firm's incentives for efficiency and its relatively high administrative costs have created the need for regulatory reform in the U.S. over the past several years. Below we discuss two different alternatives to strict ROR regulation that mitigate some of these problems. In the following section, we discuss the relative advantages and disadvantages of applying these mechanisms to PTC in a privatized environment.

## **2. Rate of Return Benchmark Approach**

An alternative to strict ROR regulation that reduces these high administrative costs involves establishing a rate of return benchmark. Under this approach, the telecommunications company is able to increase its rates as long as an agreed upon rate of return benchmark is not exceeded. In variations of this basic approach, regulators may allow a telecommunications company to earn returns in excess of this benchmark, but it must share the excess returns with ratepayers according to some pre-determined formula. Returns that are extremely high are usually passed back to ratepayers in the form of rebates.

The principal advantage of this type of approach over strict ROR methodologies is its simplicity. Once the method of valuation for the telecommunication's assets is set, there are relatively few of the administrative costs associated with protracted and contentious rate hearings, common under strict ROR regulation. A secondary advantage in relation to the privatization process is the financial stability generated under this system. Potential investors are virtually guaranteed an adequate rate of return, as prices can be raised to ensure that this return is achieved.

Although there are several advantages of a ROR benchmark over strict ROR mechanisms, the benchmark does not eliminate the most significant disadvantages of strict ROR. These disadvantages include the potential incentives for the telecommunications company to expand its asset base beyond optimal levels and the lack of incentives to operate efficiently. For example, because the benchmark approach sets a specified rate of return on a base significantly influenced by revalued assets, there may be incentives for the telecommunications entity to increase its assets base if the rate of return is higher than its true cost of capital. If a telecommunications company can successfully increase its asset base, it is rewarded with cash flows. This situation is similar to the "A-J bias" discussed above.

An additional problem that is shared by both strict and benchmark ROR regulation is that these mechanisms may not generate strong incentives for cost minimization and efficient operation. Because the telecommunications concern can raise rates to cover its costs and generate the benchmark rate of return, it has few incentives for undertaking cost reduction programs. These problems are magnified with a benchmark mechanism, as there may be no mechanisms for regulators to investigate operation issues. Specific reviews of telephone company costs can be built into this type of regulatory mechanism, but then the inefficiencies and administrative costs associated with strict ROR regulation are incurred.

### **3. "Price Cap" Regulation**

In an effort to circumvent some of the problems associated with ROR regulation as practiced in the U.S. and U.K., many regulated industries through the world have moved to "price cap" regulation. Price caps are a specific form of incentive regulation.

Price cap regulation establishes an initial average price and allows prices to change based on economic activity. Initial price levels are set for different products offered by the telecommunications company. Products are then grouped into baskets, based on cost structure and level of market competition. For each basket, maximum changes (ceilings and floors) are set, based on a predetermined formula.

In the U.K., the formula is known as "RPI-X", where maximum percent changes are calculated as the rate of inflation (Retail Price Index) less a specific amount X, representing productivity gains in the telecommunications sector. Price adjustments can be made in any direction as long as the average price does not exceed the authorized amount (initial price

plus RPI-X).

In the U.S., the formula for computing price caps for long distance calling is slightly different. The price index is adjusted each period by the GNP deflator (similar to RPI) minus a productivity allowance (approximately 3%) plus or minus exogenous factors, such as access charges from the Local Exchange Carriers. The inclusion of exogenous factors provides regulators with the freedom to be responsive to changing market conditions. Additionally, the U.S. price cap scheme implemented for the dominant long distance carrier features a price floor (i.e., prices cannot fall below the level of initial prices minus the allowed price change). Where price caps have been implemented for local (i.e., monopolistic) carriers in the U.S. they have been combined with ROR benchmark regulation. This combination provides pricing flexibility to the carriers while continuing to protect consumers from unregulated telecommunications costs.

Several virtues are claimed for price cap regulation:

- The regulation is extremely simple, and, as a result, the time and cost of regulatory hearings is avoided.
- As compared to ROR regulation, price cap regulation is not a cost-plus formula, so there is no incentive for a telecommunications company to incur additional expenses or excessive capital.
- This form of regulation promotes efficiency by allowing the telecommunications entity to benefit from cost savings programmes.
- Price caps provide the company with rate flexibility which enhances competition.

If the telecommunications company is able to reduce costs and operate more efficiently, then it is able to keep the increased profits resulting from its efficiency improvements.

In implementing price cap regulation, several issues must be addressed, including the following:

- the appropriate price index and the issue of cost pass-through;
- the criteria for and the frequency of review;
- setting initial prices;
- composition of price cap baskets;
- setting "X".

We will discuss each of these issues briefly below.

### **a. Price Indices and Costs Pass-Throughs**

The purpose of the controlling price index is to be fair without mirroring changes in the cost of the regulated business so precisely that all incentive effects are lost. Generally, the rate of price increases in the economy (i.e. the inflation rates) provides a readily available benchmark. However, if particularly important and uncontrollable costs of the telecommunications entity are likely to rise at a faster rate than the RPI, the business will be adversely affected. There are two ways to deal with this problem.

- by allowing the telecommunications company to pass on the increases in specific costs to customers;
- by choosing a specific price index which more closely reflects the cost of the industry;

Either method of allowing the business to recover cost increases can be politically difficult to defend. For this reason the first method, which involves setting a price control of the form "RPI-X+Y" (where the Y term represents the cost pass-through) may be preferable on presentational grounds if a legitimate argument for pass-through can be made. This is the case with local access charges in the U.S. long distance market or devaluation adjustment clauses in the case of utilities operating in countries with weak currencies and high foreign debt servicing requirements. However, the inclusion of such clauses increases the complexity of the ratemaking and monitoring process, reducing one of the primary benefits of price cap regulation over ROR regulation (but not significantly).

Furthermore, it is important that the cost pass-through does not reduce the efficiency with which the business incurs those costs. The Government can then point to the fact that the X factor requires an improvement in efficiency, and present the Y factor as a special arrangement to accommodate changes in specific costs.

### **b. The Criteria for and Frequency of Review**

The purpose of periodic reviews of the formula is to give the regulator pre-determined opportunities to alter the formula if factors such as changes in technology or competition make it significantly easier or more difficult for the business to improve profits within the existing price cap. The incentive to improve efficiency, however, can be reduced if such reviews occur too frequently. While the price control formula must protect ratepayers from the possibility of monopoly pricing, it must also allow the business to gain from improved performances over a reasonable period.

In general, periodic reviews should not occur more often than once every three years. More frequent reviews would imply an almost continuous review cycle and remove all efficiency incentives for the telecommunications concern. The more frequent the review, the closer this form of price control resembles rate of return regulation. Factors that should be taken into

account in determining the review period include the speed of technology change in the industry, the length of the business cycle, the pattern of investment requirements, and any known changes in regulations which are likely to affect the commercial position of the telecommunications company.

The review itself will take time to conduct properly and will involve both the telecommunications concern and the regulator in revisiting many of the issues addressed when the price cap was first set. Generally, in the review process, as with the establishment of the initial terms for the regulatory formula, the aim should be to strike a reasonable balance between the commercial interests of the owners of the telecommunications company and the interests of its customers. The review will involve an examination of the actual rate of return achieved on assets (and whether this has been excessively good or bad) and the prospect for further cost savings and efficiency improvements.

#### **c. Initial Prices**

The setting of initial prices has been a particularly significant issue for privatization in the U.K. The changeover from the public to the private sector has involved the establishment of entirely new regulatory regimes, decisions have been required on the most suitable capital structures for the entities to be privatized, and the cost structure of each of these industries has changed very significantly.

These upheavals have created difficulties in reviewing the initial prices. However, the general steps taken in the U.K. have involved the following analyses:

- the costs of the telecommunications company's various activities;
- the required rate of return (cost of capital) for the telecommunications company;
- government commitments on the level and structure of prices.

The tasks of establishing the required rate of return for the telecommunications company and the costs of service have themselves been a contentious issue in the privatization process. This aspect of price cap regulation is similar to ROR regulation in that initial price setting and periodic review entail many of the same administrative costs.

#### **d. Identifying Baskets**

The composition of baskets of products grouped together for determining price caps is a key policy tool for price cap regulation. The regulatory process will evaluate overall changes in the average basket price, which enables companies to cross subsidize products within the same basket. Regulators may choose to define baskets to either enhance or eliminate cross subsidies.

To eliminate cross subsidies, products with similar cost structures and similar market structures should be grouped together. Cost structures are important considerations due to

the productivity adjustment on the basket price cap. If a product X, with significant productivity increases is grouped with product Y, with minimal productivity increases, an incentive for cross subsidy exists (i.e., price reductions on product X at a level less than the amount of productivity could be used to offset price increases on product Y). Similar market structures are essential to protect competitors against predatory pricing. For example, the price of a non-competitive product might be increased to offset price reductions below cost of a product for which the company faces competition.

Conversely, regulators can intentionally establish cross subsidies where it is felt that they should exist to assist with universal service or technology objectives. For example, to promote universal service within the local loop, regulators may combine a universal service mandate with a price cap scheme where local and long distance measured service are in the same basket.

#### **e. Setting "X"**

The process for setting X must take account of the following issues:

- the scope for productivity improvements;
- projected capital expenditure requirements;
- initial price level
- public presentation.

The potential for substantial efficiency savings tend to argue in favour of larger positive values for X (i.e., an RPI-X formula that permits price increases less than inflation). Planned substantial expenditures will tend to argue for smaller or even negative values of X.

The setting of X is usually a matter of negotiation between the telecommunications company and the regulator because the views of both sides are unlikely to coincide. Usually, both sides use a financial model of the business to evaluate the effect on returns of varying the assumptions on values of X and initial prices.

It is apparent that price cap mechanisms mitigate many of the problems associated with ROR regulation, but not without a corresponding loss of governmental control over the telecommunications company. In the following section, we discuss the relative merits and drawbacks of these three approaches (strict ROR, ROR benchmark, and price caps) for PTC in a privatized environment.

#### **4. Advantages and Disadvantages of Options with Regard to the Privatization Process in Pakistan**

In the preceding discussion, we have discussed the relative merits and drawbacks of the three

primary regulatory mechanisms that are used throughout the world in regulating utilities. We now turn our attention to the application of these three mechanisms to regulating PTC after privatization. As with the institutional structure options, it is critical to evaluate each of the three mechanisms with regard to the criteria for sound regulatory policies developed above. We discuss the ability of each mechanism to satisfy these criteria below:

- Which regulatory mechanism best promotes financial stability for a privatized PTC? From a potential investor's point of view, a benchmark ROR approach provides the most favourable financial environment, as the PTC would be able to raise its rates until the agreed-upon ROR target is achieved. Price cap formulas would also create a favourable climate for potential investors for profits can be increased if PTC is managed and operated efficiently. Strict ROR regulation, with the possibility that certain additions to rate base or operational expenses will be disallowed, create risks to the investor that will decrease the attractiveness of PTC. The magnitude of these risks depends on investor's perceptions of the strength and aggressiveness of the regulators to disallow rate increase requests and the extent to which they may be subject to excessive political influence, which may be difficult to judge before privatization.
- Will the regulatory mechanism protect consumer interests in a privatized environment? Strict ROR regulation provides the strongest safeguards against monopoly profits through its extensive review process of a telecommunications company's costs and financial position. Price caps also provide protection through the formula and periodic review, although to a lesser extent than strict ROR. Adding a benchmark ROR mechanism such as revenue sharing to price cap regulation protects consumers in a less competitive environment. A benchmark ROR approach guards against excessive profits, but does not necessarily provide incentives for cost (and therefore rate) minimization.
- Does the regulatory mechanism provide sufficient incentives for efficient operations, management, and network investment? As discussed above, price caps generate direct incentives for efficient operations, management, and investment if applied correctly. If PTC is able to successfully implement cost reduction programmes, its investors benefit through increased earnings. Strict ROR offers limited incentives for efficiency if regulators oversee operational aspects of PTC, but there are built-in incentives for over investment in fixed assets and under investment in network enhancement if regulators do not scrutinize these decisions closely. Benchmark ROR (with no operational investigations) offers few incentives for cost minimization.
- Will the ratemaking process be relatively free from excessive political intervention? Again, the price cap approach scores relatively high in this intervention is in the review process, which would occur every three years. Likewise, benchmark ROR also satisfies this criteria because of the lack of political participation in the ratemaking process. Strict ROR regulation provides many more opportunities for

political intervention through the decision as to what investments in rate base expenses should be recoverable through rates, as well as the rate design process itself.

- Will the regulatory mechanism provide (or require) expert regulation? As discussed above, because strict ROR regulation would require extensive investigation into PTC's costs and financial performance, it requires (and fosters) the greatest level of regulatory expertise. Price caps also require a relatively high level of expertise in setting the initial price and in the periodic reviews, though not to as great extent as strict ROR. Benchmark ROR requires very little regulatory expertise.
- Is the regulatory framework appropriate for the structure of the market? Strict ROR or benchmark ROR is recommended for nonopolistic environments where pricing flexibility may not be sufficient to adequately protect consumers. Price caps are particularly useful as a transitional mechanism to an environment where consumers' interests are protected by competition. The product basket approach associated with price caps enables matching of regulation to market structure on a more specific basis. Use of price caps in a non-competitive market should be coupled with a some form of return regulation.

Regarding the optimal mechanism for regulating PTC after privatization, we recommend pursuing price cap regulation. The primary requirements of a regulatory structure during the privatization process are that it should create an environment that encourages potential investors by fostering financial security and reducing the potential for political intervention in ratemaking while still maintaining sufficient control over monopoly profits and providing incentives for efficiency. Although each of the mechanisms satisfies each of these criteria to a certain extent, price caps meet each of these requirements fairly well. Specifically, price cap regulation exhibits the following characteristics that makes it the preferable mechanism if privatization is to be encouraged:

- (i) price caps provide much greater financial stability and lower financial risks than strict ROR approaches;
- (ii) price caps reduce the potential for political intervention in the ratemaking process relative to strict ROR mechanisms;
- (iii) price caps provide greater incentives for efficient operation than benchmark or strict ROR approaches;
- (iv) price caps reduce the administrative costs associated with strict ROR regulation.
- (v) price caps can be combined with benchmark ROR to mitigate the effects of limited competition.

This price-cap method would also be particularly desirable if regulation is to be a function of the Ministry of Communications for the reasons set out in (ii) above.

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**MECHANICS OF CONDUCTING A POPULAR SHARE OFFERING**

This Appendix sets out the methodology for the conduct of privatization through a large-scale popular share offer, and constitutes Phase VI of our suggested privatization plan for PTC. We do not envisage that this phase would be done until over a year after the sale of equity to a large foreign telecommunications operator.

**APPROACH**

Privatization of large and profitable enterprises can be controversial. There are many arguments which may be advanced in favor of divesting such enterprises, but the most dramatic way to put opposing arguments to rest is to structure a public share offer in such a way that virtually all citizens have the opportunity to participate, with smaller applications, employees and telephone customers getting special privileges.

The following is a description of the method that Price Waterhouse has employed and coordinated on behalf of a government in a country which has a capital market at a similar stage of development to that of Pakistan.

**A. Task I - Resolution of Issues**

**1. Concessions to Employees.**

Often the percentage of the shares which it is possible to reserve for employees, given their ability to purchase on a realistic basis, is disappointing to policy makers. In rare cases it is possible to arrange for 100% ownership by employees immediately after privatization.

It is desirable in a public offer, that a number of free shares should be made available to all employees as this will lead to a high percentage participation by employees in the sale. This, when announced during the offer, provides impetus.

A number of heavily discounted shares (say at a 50% discount) can also be available. Within a limit additional more lightly discounted (by about 10%) shares should be made available, and other fully priced shares on a priority basis. (Priority means that despite any oversubscription they would still be able to get reserved shares.)

For the first round of applications the overall limit should be the same for each and every employee regardless of seniority or length of service, but the limit should be set at a level above the means of most employees. An easy payment plan should be established with interest expense being borne by the enterprise or government.

To the extent not taken up in the first round of applications, shares could then be accessed by

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other employees on a lightly discounted basis, thus giving more affluent employees a chance to buy proportionate to their ability whilst still preserving an egalitarian character to the scheme by virtue of the equal first round entitlement.

Employees who purchase discounted shares or shares in respect of which the easy payment plan is used, should not be permitted to sell them on the open market for, say, a 2-year period, so that selling pressure on the market does not arise. However there can be an internal market for employees during the restricted period.

## 2. Minimum Application.

The minimum application should be set at a low enough amount to enable very high numbers of people to participate in the offer, which is yet high enough as to amply cover the cost of processing the applications.

## 3. Allocation Procedures.

Apart from employees, applications will come from vast numbers of small applicants, larger individual savers, speculators and financial institutions, in increasing size. The prospectus will give the issuer/offeror the right to allocate shares in such a manner as would give preference to small applications from individuals.

## 4. Restrictions on Ownership.

It is a political decision whether there should be restrictions on ownership, ie. a percentage maximum of ownership which persons or groups of connected persons or those acting in concert cannot exceed.

In view of the size of PTC, the threat of ownership concentration by local investors is academic, but it is a real possibility that foreign investors could dominate ownership. It is our impression that this is not presently considered a major concern in respect of this company by Government. In addition, given the intention to allow a very large equity stake to be held by a foreign telecommunications operator in Phase IV, it would be difficult to explain why ownership restrictions, which would also apply to local investors, should be imposed. It is our experience that ownership restrictions eventually prove counterproductive and we would not recommend such an imposition in the case of PTC share offer. For the sake of completeness we will nevertheless briefly discuss the subject.

Many privatizations have employed the "special share" method to achieve restrictions on ownership. (Sometimes called the "golden share", sometimes called the "restricted share".) The special share can only be owned by government and is a separate share class with nominal monetary value and is redeemable on demand. The special shareholder can veto resolutions in specified matters, principally resolutions which would permit concentrations of ownership by amending, canceling or altering

the effect of clauses prohibiting ownership in excess of a certain percentage.

Without this veto power the only other way to reasonably ensure that the provisions in the memorandum and articles of association relating to concentrations cannot be effectively canceled, is to require that an impossible quorum be required at any meeting to consider such a matter and also that the vote must be unanimously in favor of such a resolution.

The remaining issues in connection with restrictions on ownership are to do with the policing of the share register and the actions to be taken if concentrations are detected. Either the registrar and transfer agent informs the directors directly of concentrations and the directors must act, or the registrar and transfer agent would first be required (by the articles) to seek legal advice in those cases where a concentration is suspected before reporting to the directors (the latter may allay the fears of some that directors may for some reason wish to treat certain parties unfairly thus an independent outside review may be considered desirable). The action to be taken by the directors would culminate in selling out the shares of the offending shareholder(s) after notice had been served.

From the private sector's and investors' viewpoints, a limitation on the percentage that can be owned by a party or parties acting in concert can be seen in a positive light as a barrier to re-nationalization. A government bent on re-nationalization would have to go through the embarrassing process of passing a primary statute to override the provisions of the enterprise's memorandum and articles.

In practice, ownership restrictions tend to hamper an enterprise from achieving its full potential in the long run. It is therefore advisable that if such restrictions are imposed they should only be for a finite period, say three to five years.

- Retention Incentives.

Retention incentives assume greater importance in cases where ownership limits are not set. Retention incentives are usually given to "tighten up the market" to better assure a rise in the price following the initial listing. The usual incentive is a "loyalty bonus" whereby individuals (not institutions) who hold shares for a certain period are entitled to receive bonus shares out of government's retained holding.

This clearly involves a cost to government which must be weighed against the achievement of medium term widespread ownership and what could be an excessive precaution to ensure a strong after-market price performance.

#### 4. Tax Waivers and other Concessions.

Waivers of various taxes may be sought to simplify the process of privatization and to reduce the amount of work that will need to be done by the issuing office. For example, if the provincial stamp duty on shares transferred in Pakistan is applicable, the delay in processing

due to the requirement for stamping a million share certificates might be intolerable because of the physical capacity of the stamp office to process the documents or for the issuing office to affix postage stamps as an alternative. Based on our discussion at the CLA, a waiver of the stamp duty would not be obtainable since it is a provincial impost, thus some other way must be found to pay the tax which does not involve a million or so physical processes.

#### 5. Need for Underwriting.

Even if capital is thought to be available, it would be wise to have the sale underwritten in view of the possibility that the application list will have to be held open for a relatively long period to accommodate unsophisticated, first-time small investors. During such a period any number of types of calamities may occur which may affect the success of the sale.

Special attention must be paid to the underwriting agreements in the case of Pakistan because the only institutions with the financial strength to underwrite are the ones whose very support as applicants for shares may be vital to the success of the offer. Shrewd underwriters in this dual role may not apply but simply wait for shares to fall to them as underwriters, gaining any extra discounts or commissions in the process, and avoiding scaling down against them in the allocation process. If underwriters have to take up shares it sends the signal that the offer failed. Certain safeguards can be built in to avoid such a situation and Price Waterhouse has structured underwriting agreements to cater to such needs.

#### 6. Costs.

The following types of costs will arise and should be budgeted:

- publicity
- advertising
- legal fees
- accounting/auditing fees
- underwriting
- commissions
- investment banker fees
- lead broker fees
- printing costs
- issuing office expenses
- computer programming
- data entry
- computer processing
- search for multiple applications

It is a moot point as to whether, in view of the fact that Government will be obtaining substantial revenues from the share sale, USAID should be approached to fund these costs.

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7. Valuation.

It is usual for the determination of the final price to be delegated to a high level official or Cabinet member, as that decision must be taken within a very short time frame just prior to the agreement with the underwriters or to the printing of the prospectus if there are no underwriters (a day or two at most).

8. Residual Shares.

It must be resolved whether there is a need on the part of the investors for the Government to undertake not to vote any residual shares nor to dispose of any residual shares for a stated period and then only in such a fashion as to not disrupt the market.

**B. Task II - Public Relations**

It would be preferable to use the Government's own public relations machinery (information agency) as far as possible for many reasons, but a private agency can also be effective.

1. Specific Enterprise Public Relations.

To begin with, it should be explained how the privatization fits into the overall policy. As the objective of the exercise is to attract as many applicants as possible in order to popularize privatization and deepen and broaden the capital market, and bearing in mind that many of the applicants would be first time investors, the strategy must be designed to carry both a message of providing opportunity and that what is being done is morally right.

2. How to Carry the Message.

The elements of the planned PR program should include presentations to influential journalists, editors and columnists and to special interest groups, particularly the military, unions and other mass organizations and academics. The program should include the elements outlined below:

- Briefing Kits.

Preparation of a briefing kit for key columnists and editors, politicians and civil servants. The kit for the politicians will include certain items not available to others, such as a sampling of opposition arguments of why the enterprise should not be privatized and how to refute, or better still preempt, such arguments.

- "Road Shows."

A team representing the Government, the enterprise, the attorneys and a stockbroker should hold meetings all over the country with influential and grass roots

organizations, even citizens at large, in public fora. The public relations agency should prepare a release after each meeting, preferably with photographs. Word-of-mouth is the most credible publicity and can result even if the rural meetings are poorly attended - the fact that a team took the trouble to visit will be widely known.

### 3. Employees.

Employees should be addressed in logical groups at various locations. Every single employee personally should have the opportunity to be at one such meeting. The employee share scheme can be explained in outline (pricing will be done at the last minute only, but the size of the discounts can be revealed) along with the "big picture" of the privatization effort. As long as an employee group is the first to be addressed and the meeting receives wide publicity, it is not necessary to wait until all employee groups have been addressed before carrying road shows to non-employee groups, and it is better that these be done concurrently.

The point can be made that when the Government's holdings fall below 50%, the pay strictures applicable to government workers will no longer apply and the enhanced opportunities for career advancement should be explained as a result of the privatization. (Despite union opposition in other countries, typically over 90 of the employees of the enterprise being privatized apply for shares. Union leadership then runs the risk of being perceived as being out of touch with the membership or trying to stand in the way of their members' receiving benefits).

### 4. Private Sector Groups.

The first outside organization which should be addressed is the main private sector organization as it is the one absolutely certain place where an expression of strong support can be obtained and used in a press release. It is important to extract and publish as many supportive statements as possible quickly, so the first groups to whom the message should be taken are those most likely to be supportive.

This support should be sought whether or not there has been public criticism of the strategy at that time. The object is to as far as possible preempt criticism and not be on the defensive.

Other important organizations from whom an expression of support would be most helpful would include academics, farmer's organizations or associations, religious leaders, cooperatives, teachers, nurses and perhaps even public fora hosted by any of these or similar groups.

### 5. The Unions.

A meeting with leaders of the union movement as a whole (not just the unions for workers of

the enterprise or the state sector, but all unions) would also be desirable. Union support can be achieved if the workers of the enterprise are given attractive concessions. Unions also find restriction on ownership features attractive ideologically and assuring them of the effectiveness of such restrictions is important.

It can be claimed that if each of the members of all the unions in Pakistan applied for even a small number of shares, the country's union movement could have a major collective stake in the enterprise.

### **C. Task III (a) - Implementation of public relations**

Throughout the sale, an air of competence and confidence must prevail. There should be a special logo for the sale and a "hotline" should be set up to answer queries.

#### **1. Commence Image Building of the Enterprise.**

The advertising program should have two distinct aspects, raising the profile of the enterprise itself and providing information about the share offer. The enterprise will naturally wish to use its own agency in connection with the image-building advertising, and should pay for those costs. Opinion polls should be used liberally during all phases to determine public reaction.

#### **2. Plan News Stories Concerning the Privatization.**

There should be planned news stories such as the announcement of the privatization, who is in charge, the launching of the employee share scheme, the underwriting, the launching of the prospectus, the opening of the list, the extent of employee applications, the attainment of the minimum offer, the last minute rush ("share-fever"), the (hopefully) extent of the oversubscription, the allocation basis, the despatch of the share certificates or allotment letters and refund checks. The "trick" is to eke out the information slowly so that the number of news articles is as many as possible.

Appearances on television discussion shows and radio call-in programs by the management of the enterprise and by the person in charge of the sale will also enable the public to feel that they have had an opportunity to discuss the issue.

#### **3. Commence Publicity on Share Ownership.**

A Question and Answer ("Q&A") sheet explaining shares and share ownership in simple language should be prepared, starting with the question "What is a share?". The Q&A sheets will be distributed in large quantities at meetings with special interest groups, through supermarket checkouts, a newspaper supplement and other means.

### **Task III (b) - Implementation of Share Sale Operations**

1. Mobilize prospectus committee, assign responsibilities and commence drafting.

The committee which will consist of the management of the company, the enterprise's legal advisors, the auditors (on an ad-hoc basis) and the legal advisors to the government. A detailed timetable will be agreed and rigorously followed up.

2. Carry out negotiations with financial institutions, selling agents, issuing office and registrar and transfer agent. Design systems and procedures and provide training.

In order to have shares available to persons all over Pakistan, commercial bank branches could be used as selling agents. Commission rates and fees must be agreed with these organizations as must their duties. Training of bank staffers will be necessary and the importance of not unduly influencing potential applicants must be stressed.

In order to avoid the receipt of cash by the issuing office, arrangements may be made with selling agents to cover each cash batch of applications with their own certified cheque. Banks should be requested to give special clearing facilities for the offer. It is particularly important that the operation is efficient and that all announced deadlines are met.

The issuing office should have a good track record and competent people and computer resources. It is vital that the issuing office be highly capable and every step of the process must be planned. As a rule of thumb, a staff complement of about 1 person per thousand applications is needed, not including data entry. Great care must be taken to ensure the smooth and accurate processing of applications. Price Waterhouse has developed software and procedures which have proven highly successful in this type of organization.

It should be clearly known at the outset whether the issuing office is to perform the post-privatization registration and transfer work as this will have a major impact on system design.

3. Assemble Documents for Inspection.

The completion of all important agreements must be monitored closely. These would include the licenses, incorporation documents and documents evidencing any waivers or concessions made by government to facilitate the privatization. They must be available for inspection by potential investors while the prospectus is "live".

4. Obtain Approval of Final Text of Prospectus.

The CLA must approve the prospectus before publication. The Stock Exchange should also have sight of a near final draft of the prospectus to identify any deficiencies which may cause difficulties in listing the share.

5. Make Decision on Price per Share.

Advisors will recommend the price of the shares just prior to the final printing of the prospectus. The pricing decision will take into account all of the factors normally used in valuing a commercial enterprise plus those factors relating to the objectives of the privatization as agreed by government and the then state of the market. The CCI division of the CLA presently has the role of setting the offer price, but this role may be abandoned in view of the increasing sophistication of the Stock Market.

6. Publicity Relating to Share Offer.

The objective of this publicity is to encourage the public to make applications. The advertising should be done on all media. The government will receive a massive political boost through extensive advertising of the shares and this should be borne in mind if the advertising costs are considered too high.

The information aspect of the advertising should publicize when prospectuses will be available and where, when the application list will be open, suspense-building countdowns to the closing date can be another feature.

7. Print Prospectus.

This will be a large task considering the number of applicants being sought.

8. Distribute Prospectus.

The mechanics of the distribution of the prospectus will have been planned. The prospectus should also be published in the newspapers. All bank branches and branches of any organization which has numerous offices should be used to assist in the distribution.

**D. Task IV - Processing Applications**

1. Open Application List.

Arrangements must be made to ensure that the government maximizes the use of funds before refunds are made to unsuccessful or partly successful applicants.

## 2. Process Applications.

This must be thoroughly planned. Although the list will probably be open for a longer period than would be the case in countries with highly developed capital markets, it can be expected that 75% of the funds and 40-50% of the applications numerically will be received in the last three days. This would be so whether the offer is open for one week or three weeks. Staffing levels at the issuing office should be set with this in mind.

The longer the list is open, the more risk is taken by the seller. Institutions and speculators will be keen to determine whether the issue is going well or badly before making their decision, and will try to gain information by innovative means, more possible if the offer is open for a longer period. However in the case of a first major offer when the target investors are unused to the concept, a relatively long period is needed.

It is vital that information be as tightly controlled as possible and that any statements be made by only one authorized person, as a carelessly worded reply can have adverse repercussions on the success of the offer.

## 3. Close List.

Regardless of the response to the offer, the list should close on schedule and not be held open if the response is poor. If the list were to be held open, the credibility of the closing date of subsequent privatizations would be suspect. Any publicity will depend upon the results, but should include comments from the political directorate with hints as to the next steps in the privatization program. It is also important to state clearly Government's intentions as to any residual shareholding.

In the event that the offer is not wholly successful, it is important to preempt negative press reports by preparing a release before the information leaks. This release can frame the outcome in a positive way ("we were courageous and our courage has paid off"; "the biggest share subscription in the country's history"; "we are sorry that some missed the deadline but they will have a chance to buy in the after-market").

## 4. Audit for Multiple Applications.

Computerized systems should be used for the review of applications to ensure that those who apply on several different forms are aggregated for the purpose of determining their entitlement under the allocation method announced. Price Waterhouse has been particularly successful in detecting multiple applications in large share offers.

## 5. Obtain approval of and announce share allocation method.

Micro-computer models exist to assist in the determination of the precise allocation method to achieve the objectives of government.

6. Print and Distribute Share Certificates.

After sufficient time has been allowed for checks to clear, the share certificates may be printed. We have found it unnecessary to use letters of allotment as an interim step, given current technology.

This will have been planned in detail and performed by the issuing office. When the envelopes are being despatched, there should be news photographs with captions so that the public is aware that the issuing office (Government) has done its job.

If arrangements can be made to have the certificates delivered to a few hundred points for retrieval by the shareholders instead of to thousands of individual addresses, this could greatly improve efficiency. The retrieval points could be where the shareholders made their applications.

7. Comply with Requirements for Listing.

The register of shareholders should be delivered to the stock exchange within the prescribed time along with the other documents needed to process the listing application.

8. Announce Date on which Trading will Commence.

The public should be given information as soon as possible.

9. Start Trading.

Both the start of trading and the first annual general meeting are media events, and coverage should be planned.

**ILLUSTRATIVE TERMS OF THE PUBLIC OFFER****OBJECTIVES:**

- 1) To encourage as many citizens of Pakistan as possible to participate in the share offer in order to broaden ownership.
- 2) To massively increase the capitalization of the Stock Exchange.
- 3) To introduce foreign institutional investors to Pakistan.

*The numbers used in this illustration are based on guesswork and the main purpose of this Exhibit is to provide a model into which more researched estimates and facts can be input at the appropriate time.*

**EMPLOYEE SHARE OWNERSHIP SCHEME:**

- 1) All full-time employees eligible.
- 2) All have equal entitlement on first round of applications.
- 3) Shares not taken up on first round may be accessed by all employees up to a limit per employee in a second round.
- 4) Shares reserved for employees will be equivalent in value to 25% of the annual payroll cost.
- 5) Out of 4) above, each employee will have a right to (i) free shares worth up to US\$20 (ii) 50% discounted shares where the shares are worth US\$120 and (iii) 10% discounted shares worth US\$140.

**Calculation**

Annual payroll cost	1,400 mn. Rupees
Number of employees	50,000 persons
Average salary	28,000 Rupees
Entitlement per employee (3 month's salary)	7,000 Rupees 280 US\$
Free shares	20 Per employee
50% discounted shares	120 Per employee
10% discounted shares	140 Per employee 280 Per employee
Proceeds from employee scheme	14,000,000 Gross US\$
Less discounts	4,700,000 US\$
Net	9,300,000 US\$

- 6) The free and discounted and reserved shares may be obtained on an easy payment plan over 3 years payable by payroll deduction.
- 7) Shares financed under the easy payment plan cannot be traded on the open market but may be traded on an internal market at the same price as the price on the Stock Exchange, for 3 years. Even if not fully paid, the shares may vote and receive dividends although held in the name of the employee trust, as there will be memorandum accounts for each employee within the trust.

**ILLUSTRATIVE TERMS OF THE PUBLIC OFFER**

- 8) The second round of applications out of the unallocated pool will be permitted up to 3 months after trading begins on the stock exchange to a value of US\$20,000 per employee for cash. If the shares are trading at less than a 10% premium to the offer price they can be bought for a 5% discount to the offer price; if trading at a 10% to 20% premium they may be bought for the offer price; if trading at over 20% premium they can be bought at a 10% premium to the offer price.

**CUSTOMER RESERVED SHARE SCHEME**

- 1) All individual telephone subscribers may access up to US\$100 shares on a priority basis at full price.
- 2) Priority forms can be used to apply for more than US\$100 of shares, but in the event of oversubscription the amount by which the application exceeds a value of US\$100 will be scaled down as if it were an ordinary application.

**Calculation - reserved shares**

Number of customers	1,000,000 persons
Reserved per customer	100 US\$
	100 US\$mn.
Assume 25% takeup	25 US\$mn.

**APPLICATIONS FROM INDIVIDUALS**

- 1) The minimum application will be for US\$25
- 2) The target is for 1 million + applicants

**Calculation**

Number of applicants targeted	1,000,000 persons
Average application	100 US\$
	100 US\$mn.

**APPLICATIONS FROM INSTITUTIONS, FOREIGN AND LOCAL****Calculation**

Total offer of residual Government shares	1,470
Less estimated from -	
Employees	14
Customers	25
Individuals	100
	139
To be raised from institutions	1,331

(The largest sum received in applications for a share offer on the KSE was 1.5bn Rupees (US\$ 60 mn) according to the CLA. This offer doubles the amount though adequate for P.R. and advertising, from individuals alone.)

## INDICATIVE FINANCIAL RESULTS OF PRIVATIZATION

The numbers used in this illustration are rough estimates. This exhibit serves to provide an initial model for which more researched estimates and factual information can be applied

### ASSUMPTIONS:

	US\$
(A) - APPRAISED VALUE OF PRODUCTIVE ASSETS	1,500
(B) - NEGOTIATED VALUE OF NEW COMPANY	3,000
(C) - EQUITY PARTICIPATION BY PRIVATE INVESTOR	51.0%
(D) - COST OF REHABILITATION AND EXPANSION PROGRAM	3000
(E) - PERIOD FOR REHABILITATION AND EXPANSION PROGRAM	3 YEARS
(F) - RATE OF SPENDING	EVENLY
(G) - DESIRABLE DEBT: EQUITY RATIO	1:1
(H) - EARNINGS PER YEAR	350
(I) - TERM OF EXCLUSIVITY	10 YEARS

### NEW COMPANY BALANCE SHEET

	INCEPTION US\$mn.	END OF YR 1 US\$mn.	END OF YR 2 US\$mn.	END OF YR 3 US\$mn.
<b>ASSETS</b>				
Inventories	500	500	500	500
Fixed assets	1,000	2,000	3,000	4,000
Goodwill/License	1,500	1,350	1,200	1,050
	3,000	3,850	4,700	5,550
<b>LIABILITIES</b>				
		500	1,000	1,500
<b>NET ASSETS</b>				
	3,000	3,350	3,700	4,050
<b>REPRESENTED BY:</b>				
Share capital - Major investor	1,530	1,530	1,530	1,530
Share capital - GOP	1,470	1,470	0	0
Share capital - employees			14	14
Share capital - customers			25	25
Share capital - individuals			100	100
Share capital - institutions			1,331	1,331
	3,000	3,000	3,000	3,000
Retained earnings		350	700	1,050
<b>TOTAL SHAREHOLDERS' EQUITY</b>	<b>3,000</b>	<b>3,350</b>	<b>3,700</b>	<b>4,050</b>

**ELEMENTS OF THE SCOPE OF WORK**  
**FOR THE REVISED TERMS OF REFERENCE**  
**FOR TECHNICAL ASSISTANCE**

**A. OBJECTIVE**

Assist the GOP in achieving privatization at an early date in a manner which is consistent with the public interest. In order to achieve this, the following must be in place:

- A sound but broadly-stated policy framework must be settled including the principles of the legal and institutional framework for regulation and ratemaking as well as standards;
- The GOP negotiators must be equipped to carry out negotiations in a manner that will maximize the benefits to Pakistan; and
- Advice in implementing telecommunications policy through appropriate legal documents and institutions.
- Advice in relation to the subsequent share offer.

**B. SCOPE OF WORK**

1. Policy Framework

The consultant should guide the formulation of the policy and ensure that, whilst all aspects relevant to the privatization of the domestic and international telephone service are covered, the statement is not too specific to preclude negotiations with investors.

2. Negotiation Support

a. Asset Valuation

The approach that should be taken in the absence of adequate plant records should be to obtain an expert assessment of the replacement cost of the capacity of the PTC network and facilities with due allowance for obsolescence and deterioration. Inventories should also be valued at replacement cost and real estate at market value.

b. Setting Initial Rates

This will require a study of the costs of the Telecommunications Company's various activities, the required rate of return (cost of capital) for the Company and GOP objectives in structuring

the rates.

c. Setting "x"

In a price-cap environment, "x" represents the variation of the general price index that will be applied. To set "x" the following must be taken into account:

- scope for productivity improvement;
- projected capital expenditure requirements;
- initial price level; and
- public presentation.

d. Financial Modelling

The Advisor will develop models which are responsive to the changing assumptions that will evolve through negotiations. The results of changed assumptions on the price being demanded by the GOP can be instantly determined and the GOP can have a full appreciation of the sensitivity of various types of assumptions on the purchase price.

3. Installing Regulatory Framework

Following the agreement with the majority investor, the detailed regulatory policy will have been established together with the method of regulation and ratemaking. Advisors can assist in the process to ensure that the establishment, of the regulatory machinery is in keeping with the understanding and expectations of both parties.

**C. SPECIALISTS NEEDED**

1. Privatization Advisor

This person would serve as the Team Leader and principal Advisor to the GOP in negotiations with primary responsibility for liaison with the GOP and directing and approving all work conducted by the team. In addition, the Advisor will monitor the installation of the regulatory framework to ensure that it is in keeping with shareholders or other agreements negotiated with the purchaser.

The Advisor will have an advanced degree in Business Administration or an equivalent discipline. In addition, significant experience in privatization in developing countries, especially in the area of private placements and public share offerings and negotiating and closing such deals either on behalf of Governments or private investors. Experience in the telecommunications sector preferred.

2. Legal Advisors (3)

The Legal Advisors will be responsible for drafting memoranda of understanding, assisting in the drafting of the shareholders' agreement, provide advice in respect of tax, commercial, labor and other applicable legislation, assist in the drafting and review of relevant agreements and legislation that is required during the privatization process. These Advisors should have a background in labor law and relations as well as tax and commercial activities. One of these advisors must be from a Pakistani law firm.

3. Telecommunications Policy Specialist

The Telecommunications Policy Specialist will be responsible for assisting the GOP in setting the initial telecommunications policy required for the preparation of the shareholders' agreement, bidding documents and subsequent negotiations. In addition, this Specialist will provide technical assistance to the Legal Advisors in the drafting of any legislation required during the privatization process and assist the Privatization Advisor in the monitoring of the installation of the regulatory framework and the Utility Economists in the development of the tariff structure. This specialist must have a strong history of experience in the telecommunications industry in both the U.K and the U.S. or Japan and preferably developing countries such as Mexico, Thailand and Jamaica where the telecommunications enterprises have been privatized and have a working knowledge of regulatory and policy models currently in place in such countries.

4. Utility Economists (2)

The economists will have primary responsibility for the determination of the tariff mechanism including the cost of service, initial rates and in the case of a price-cap, determining "x" and relevant models to assist in this process. These economists will have previous experience in conducting cost of service and tariff studies and developing models in the utility field, preferably in the energy or telecommunications sectors. Advanced degrees in economics, business administration or a related field would be required. Experience in developing countries would be preferred.

5. Investment Banker

The Investment Banker will be responsible for supporting the negotiating activities of the GOP along with the Privatization Advisor including the preparation of the bidding documents, leading the "going-concern" valuation efforts and the determination of the desirable purchase price. The qualifications for this position includes previous experience in privatization, specifically in the negotiation and closing of privatization transactions, either on behalf of Governments or private investors, preferably in developing countries. Experience in the conduct of energy or telecommunications privatization transactions preferred. This individual should have an advanced degree in economics, business administration, accounting or a related discipline.

6. Valuation Specialists (2)

The Valuation Specialists will be responsible for conducting the "going-concern" valuation of the PTC. There will be two specialists: one in the telecommunications industry with previous experience conducting these activities, preferably in developing countries for privatization purposes; and the other in the real estate industry who would be from a local Pakistani firm.

7. Financial Analysts (3)

The Financial Analysts would have primary responsibility for the development of financial models and spreadsheets to generate the information and analyses necessary to support the GOP, the Privatization Advisor and the Investment Banker in their negotiation activities. In addition, the financial analysts will provide support to the Investment Banker in the conduct of the "going-concern" valuation and to the Privatization Advisor in general areas. The financial analysts will have academic backgrounds in business administration, economics, accounting and related fields. Previous experience in privatization, specifically in analyzing the impacts of telecommunications undertakings in developing countries would be preferred.

**D. PROPOSED BUDGET**

# TIMETABLE FOR PTC PRIVATIZATION

Date	Activity	Responsibility	
<b>STAGE A - SALE OF EQUITY TO FOREIGN OPERATOR</b>			
<b>PHASE I - DEFINE POLICY FRAMEWORK FOR TELECOMS AND MOST DESIRABLE TRANSACTION STRUCTURE FOR PTC PRIVATIZATION</b>			
Task 1	12 Oct 91	<p>Submission of PW Draft report</p> <p><i>Sector policy issues - The Price Waterhouse report will provide recommendations concerning the policy, legal and institutional structure for regulation and the policy and method of ratemaking.</i></p> <p><i>PTC Privatization - The report will provide recommendations as to the transaction structure appropriate to PTC.</i></p>	Price Waterhouse
Task 2	19 Oct 91	<p>Submission of report of MOC study team of findings from review of regulatory systems in 3 countries</p> <p><i>The study team's report will present recommendations covering those sector policy issues addressed by PW plus policy recommendations on technical issues including frequency spectrum management</i></p>	MOC Study Team
Task 3	26 Oct 91	<p>Decision as to need for further consultancy advice on aspects of policy in the context of the PTC privatization</p>	Secretary MOC/ USAID/IBRD
Task 4	30 Nov 91	<p>Decision on broad telecom policy and on PTC privatization transaction structure</p> <p><i>With or without further input of consultants, decide on the above in sufficient detail so as to be able to provide meaningful information to potential investors</i></p>	Minister of MOC/ Cabinet
<b>PHASE II - SOLICIT INVESTMENT PROPOSALS AND PREPARE FOR NEGOTIATIONS</b>			
Task 1	6 Dec 91	<p>Request investment proposals</p> <p><i>The request will contain the broad telecom policy and preferred transaction structure</i></p>	MOC
Task 2	31 Mar 92	<p>Deadline for submission of investment proposals</p> <p><i>Investors will have 4 months to formulate their proposals. In the meantime, some of the policy and regulatory/ratemaking details can be refined by Government with the assistance of advisers, and Government negotiators instructed accordingly, and the valuation of plant in service, CWIP and inventories can be done on a depreciated replacement cost basis. During this period the advisers to the Government will perform a going-concern valuation of the enterprise and prepare computerized cash flow forecast models capable of producing results under a variety of assumptions and develop the price-cap analysis and determine the parameters and "X" factor to set initial rates.</i></p>	Investors/PTC/MOC  MOC/ Appraisers/ Regulatory & Financial Advisers

<b>PHASE III - EVALUATE PROPOSALS AND NEGOTIATE WITH POTENTIAL INVESTORS</b>			
Task 1	30 Apr 92	Evaluate proposals and select candidates for negotiations	MOC/Advisers
Task 2	15 Jun 92	Sign memorandum of understanding with investor	MOC/Advisers Investor
Task 3	30 Jun 92	Ratification by investor Board and Cabinet	GOP/Investor
<b>PHASE IV - EXECUTE SHAREHOLDERS AGREEMENT</b>			
Task 1	31 Jul 92	Prepare legal documents	GOP/Advisers
Task 2	15 Aug 92	Sign shareholders' agreement (or license if possible)	GOP/Investor
Task 3	15 Aug 92	Issue shares in new company to investor on receipt of payment	GOP
Task 4	15 Aug 92	Appoint Directors	GOP/Investor
Task 5	15 Aug 92	New company purchases assets from PTC	New Company/PTC
Task 6	15 Aug 92	New employment contracts executed	New Company
Task 7	15 Aug 92	Appoint auditors	Shareholders

## STAGE B - ESOP AND PUBLIC SHARE OFFER

<b>PHASE V - IMPLEMENT REGULATORY FRAMEWORK AND ISSUE LICENCE</b>			
Task 1	31 Dec 92	Implement regulatory framework and recruit staff	MOC
Task 2	1 Jan 93	Issue License to new company	MOC
<b>PHASE VI - PUBLIC SHARE OFFER</b>			
Task 1	31 Oct 93	Receive audited accounts for first year of operations (assuming financial y/e of 15 August)	New Company/ Auditors
Task 2	1 Dec 93	Completion of steps per Appendix III	GOP/New Company/ Advisers

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