



INTERNATIONAL TELECOMMUNICATION UNION

Policies and ways for financing  
telecommunication infrastructures  
in developing countries

**BDT**

TELECOMMUNICATION  
DEVELOPMENT  
BUREAU

**ITU-D Study Groups**

First Study Period (1995-1998)

Report on Question 4/1



# PUBLICATIONS OF ITU-D STUDY GROUPS

## Study Period 1995-1998

### Study Group 1

- Report on Question 1/1** Role of telecommunications in economic, social and cultural development
- Report on Question 2/1** Telecommunication policies and their repercussions at the level of institutional, regulatory and operational aspects of services
- Report on Question 3/1** Impact of the introduction and utilization of new technologies on the commercial and regulatory environment of telecommunications
- Report on Question 4/1** Policies and ways for financing telecommunication infrastructures in developing countries
- Report on Question 5/1** Industrialization and transfer of technology

### Study Group 2

- Report on Question 1/2** Special concerns of developing countries in relation to the work of the Radiocommunication and Telecommunication Standardization Sectors
- Report on Question 2/2** Preparation of handbooks for developing countries
- Handbook on *New developments in rural telecommunications*
- Handbook on *New technologies and new services*
- Handbook on *National Radio Frequency Spectrum Management and Monitoring System – Economic, Organizational and Regulatory Aspects*
- Report on Question 3/2** Planning, management, operation and maintenance of telecommunication networks
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## Policies and ways for financing telecommunication infrastructures in developing countries

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## INTERIM REPORT ON QUESTION 4/1

**Policies and ways for financing telecommunication infrastructures in developing countries****Definition of the problem**

Economic growth results in strong demand for telecommunication services and information technologies. Those responsible must be in a position to meet this demand so as not to hinder their countries' economic growth, and if possible in order to reduce the technology gap between developed and developing countries. Hence the importance for countries with inadequate infrastructure to have access to the best conditions of financing so that they can acquire the necessary equipment as quickly as possible (infrastructures in the developed countries have, in most cases, already been financed and amortized).

In the 1980s, 65% of telecommunication investment was self-financed, 15% came from public sources and 20% from private sources. On current 1990s trends, the private-sector share should soon reach 50%, for, in most cases, traditional resources are no longer sufficient to cope with the increase in financing requirements. External aid in the field of telecommunications is stagnating, the level of State subsidies is declining, with a shift to activities considered as being less profitable, and finally, the level of corporate self-financing is inadequate. Administrations and operators must show imagination, use new sources of finance and frequently have recourse to external investors, whether or not they are telecommunication operators.

Is privatization a prerequisite condition for effective financing of investment in telecommunication infrastructure everywhere? How much credence can be placed in the development of the information society in rural or isolated areas which are already short of infrastructure and lack their own financial resources? How can an investment project go further than just redistributing stock and actually increase the flow of resources? How can new resources be raised where traditional resources have proved to be unobtainable? There is no easy answer to all these questions implicit in Question 4/1, which was set at the first World Telecommunication Development Conference in Buenos Aires in 1994.

In any event, there appears to be no universal panacea, even though a number of multilateral or bilateral institutions, which not long ago were offering better-than-market financing conditions, today propose to rely exclusively on the private sector. Confronted with these numerous questions, operators and Administrations find themselves at a loss, lacking an overall view of financing options. The work of Study Group 1 (Question 4/1) is aimed at helping the developing countries to prepare financial strategies and policies suited to the new environment, taking into account the wave of reforms under way in the sector.

This document, which is the first output of this work, should provide a review of potential financing possibilities and serve as a basis for the possible elaboration of an appropriate Recommendation by the next WTDC, to be held in March 1998 in Valletta (Malta), and for further studies in the next study period (1998-2001). The text which follows must therefore be considered as provisional, although it does contain a number of recommendations, set out in italics.

## PART A

**Overview of activities**

Resolution 2, adopted at the first World Telecommunication Development Conference, lists the different questions concerning the financing of infrastructure to which Study Group 1 is called upon to respond (Question 4/1).

**1 Terms of reference**

The text of Resolution 2 reads as follows:

“To what *financing policies, methods and techniques* might Administrations or operators in developing countries have recourse in order to secure the investment necessary for developing their telecommunication infrastructures?

What *conditions must be observed* for obtaining certain types of finance?

What factors (national legislation, structural aspects, regulatory framework, price control policy, etc.) might help to create a *climate favourable to investment*?

Based on an analysis of different tariff models, which recommendations or guidelines may be formulated in relation to:

- a) models of *adjusting tariffs to costs*; methods of calculating the cost of services;
- b) the evolution of tariff structures within the framework of a policy aimed at progressive *balanced tariff structures*;
- c) an analysis of channels for securing lines of credit for financing investments in infrastructure and training to make the improved quality controls viable.

Which appropriate recommendations can be applied between the countries concerned in relation to the *international accounting rates* bearing in mind the results obtained from the various studies undertaken by the ITU-T concerning the elements to be taken into account when determining the costs of telecommunication services?”

**2 Distribution of tasks**

Two categories of questions are discernible in the above text: the first aims at elucidating the different methods of investment financing, the second at suggesting reforms in the area of tariffs and accounting rates. As will be seen below, these two categories of questions have been dealt with separately. The first set was entrusted to Mr. Pillet (France), the second to Mr. Al Rawahy (Oman). The first part of Question 4/1, relating to finance, was divided into four sections: policies and ways for financing telecommunication infrastructures (I), the conditions to be observed for obtaining certain types of finance (II), factors which might help to create a climate favourable to investment (III), and channels for securing credit to finance investment (IV). The second part of Question 4/1, relating to tariffs, comprises two sections: recommendations or models for adjusting tariffs to costs and methods of calculating the cost of services (V), and the evolution of tariff structures within the framework of a policy aimed at progressively balanced tariff structures (VI). This breakdown will be reflected below in the arrangement of the various chapters.

In November 1995, at the last meeting of the Group of Rapporteurs, a preliminary plan for the final report on Question 4/1 was adopted, along with a distribution of drafting duties among the five members of a select group. It did not prove possible to complete the consolidation of all contributions as a draft final report, as scheduled, by the end of 1996. The present document is a preliminary draft.

The Group of Rapporteurs for Question 4/1 (items 1, 2, 3 and 4) initially comprised 34 members: M. De La Torre, L. Gallagher, R. McElvane, D. MacGirr, M. Vanvi, A. Akossi, M. Amerdal, P. Allen, H. Al Rawahy, B. Barnett, M. Butera, G. Cayla, I. Degbelo, E. Fernandez, C. Garnier, G. Gathuri Njorohio, M. Ghazal, B. Gracie, M. Haile, D. Hall, J. Hua, M. Ito, A. Kehili, N. Kisrawi, K. Koy, L. Lispi, W. Lucas, J. Mack, M. Majek, P. Mège, S. Ouedraogo, J. Overvest, T. Pillet, B. Rouxville, M. Sadou, T. Shinohara, M. Stojkovic, E. Wanko, D. Wright, J. Yongoro.



### 3 Work programme and questionnaire

Two documents were adopted in February 1995:

- a) The work programme for the period 1995-1997, which sets out in detail the different tasks to be carried out by the Group. The main stages of activity are the following: inventory of the contributions received, analysis of the results of the questionnaire, establishment of liaison with financial institutions, identification of factors conducive to investment, definition of a training programme and drafting of the final report.
- b) The questionnaire on policies and ways for financing investment in telecommunication infrastructures in developing countries. This questionnaire was sent out by the ITU Telecommunication Development Bureau, in May 1995, to the entire ITU membership, as well as to the finance institutes, development banks and organizations responsible for financing telecommunication projects. More than a hundred replies have been received and processed to date. A brief survey of the replies, focusing especially on those from the least developed countries, is annexed to this document.

The replies to the questionnaire were subjected to systematic and definitive analysis by BDT (cf. Section VII of the questionnaire). Given the confidential nature of some of the information submitted, the analysis has not been published.

### 4 Content of the contributions

The contributions received since the beginning of 1995 describe the difficulties encountered by the developing countries in financing their investments in telecommunication infrastructures, as well as the solutions adopted. The conditions imposed by sources of finance for obtaining loans (restructuring, liberalization, privatization, etc.) are frequently criticized, as is the tendency to impose uniform models irrespective of the specific characteristics of countries. Further contributions have been received since the last meeting.

A contribution from the United States entitled "Financing for telecommunications development" was presented at the Telecommunications Finance Colloquium held in Amman (Jordan). This document briefly summarizes the various possible sources of financing (reinvestment of earnings, joint ventures, lease-back, franchises, public finances, private financing, community-based cooperatives, etc.), and presents some very interesting case studies (Chile, Bulgaria, Hungary).

The contribution from Lebanon on "Evaluation principles in an inflationary environment" lays particular stress on the impact of high inflation or of the lack of strong currencies in developing countries on the financing of infrastructures. Several ways of countering the effects of hyperinflation are analysed (non-distribution of profits, depreciation of replacement costs, re-evaluation of the balance sheet, etc.).

Thomson-CSF (France) submitted a document on "Financing a spectrum management agency". This contribution proposes levying a fee on all frequency users in order to encourage efficient use of the radio spectrum, and analyses the various criteria to be taken into account in determining this fee. It also explains how the fee could be used to finance the running of an agency. A second contribution from Thomson-CSF, entitled "Private-public sector partnerships", examines public service concession procedures and draws attention to their main advantages and drawbacks.

A contribution was also received from the Ministry of Posts and Telecommunications of China. It explains the particular position adopted by China with regard to financing: foreign investment in telecommunication networks is welcome, but foreign investors may not participate in the provision of telecommunication services.

Sudan also presented a contribution recalling the numerous difficulties that the country had experienced in the past in its attempts to implement new approaches to the financing of telecommunications. These setbacks were frequently due to opposition to change from the Ministry of Finance. Partial privatization was eventually accepted in Sudan as the only means of overcoming financing difficulties.

A contribution from the Canadian International Development Agency, entitled “The role of development lines of contribution”, presents a solution for financing telecommunications in rural areas. The procedure is more or less as follows:

- 1) a local telecommunication company negotiates a contract with a Canadian supplier;
- 2) CIDA pays the supplier in Canadian currency; in return, the local telecommunication company pays the equivalent sum in local currency into a special fund;
- 3) the special fund is then used to finance social projects aimed at combating poverty.

## 5 Liaison

In September 1995, a letter was sent to the development banks and to the various development aid bodies, urging them to take part in the work of the Group of Rapporteurs on Question 4/1 and to send a contribution describing their organization, their lending criteria and the specific conditions applied to the financing of telecommunication projects. The Group of Rapporteurs only received a small number of direct replies. However, in drawing up the list of financial institutions, BDT has succeeded in compiling fairly full and very useful information.

Through further liaison established by the Group, the Rapporteurs on the Questions assigned to Study Group 1 concerning the role of telecommunications in economic, social and cultural development (Question 1/1), telecommunication policies and their repercussions at the level of institutional, regulatory and operational aspects of services (Question 2/1), and industrialization and transfer of technology (Question 5/1), are kept informed about the work of the Group of Rapporteurs for Question 4/1, as are the Study Group 2 Rapporteurs for Questions 4/2 (rural telecommunications) and 5/2 (management of human resources).

Lastly, in response to our liaison statement of November 1995 (Document 1/144(Rev.1)), ITU-T Study Group 3 sent us a contribution entitled “Financial impact of call-back on the developing countries”, comprising a report which that Study Group submitted to the Council in June 1996. A resolution on call-back (Resolution 1099) was adopted on that occasion.

## 6 Future orientations

At the last meeting of the Group of Rapporteurs for Question 4/1 in November 1995 in Geneva, a preliminary report was presented and adopted, which comprised specific guidelines for the future work of the Group of Rapporteurs:

- 1) “Continue to make players aware of the importance of the question in hand – Experience shows that it is indeed essential to continue working in close collaboration with the players that may be capable of mobilizing new sources of financing: development agencies, development banks, local commercial banks, venture-capital companies and organizations in charge of development aid. Accordingly, one objective would be to associate these players more closely with the work of the Group of Rapporteurs.”

A specific draft questionnaire, addressed in this instance not to the ITU Member States but to the financial institutions which play an important role in the telecommunication field, was drawn up in November 1995. It was sent out after the meeting of the Group of Rapporteurs in September 1996.

- 2) “Define a training programme for those responsible for financing issues – The first responses to the questionnaire have indeed shown that generally those in charge of finance and investment require further training. The training programme could comprise a first part on the general principles of financial management and existing financing mechanisms, and a second, more practical, part on managing a financing project, in which each participant would be made responsible for a financing project.”

In order to acquaint decision makers in developing countries with existing mechanisms for the financing of telecommunication investment, three colloquia have already been organized on this question – one in the Africa region (at Abidjan, Côte d’Ivoire), one in the Arab States (at Amman, Jordan) and one in South America (at Brasilia, Brazil) – involving close cooperation between BDT and Study Group 1. These three events helped to make progress in dealing with the issue. The main lessons learned have been reflected in the draft interim report for Question 4/1. They will be supplemented shortly by a consolidated document by BDT.

- 3) "Give a small team the task of writing the report on Question 4/1 – To this end, a preliminary plan was drafted after consultation with the 34 Group members. It was thought necessary to give the task of writing the final report to a small group."

A team of five persons was set up in November 1995. Their contributions were taken into account in the preparation of the draft interim report. Three new lines of approach were adopted in respect of work after the September 1996 meeting:

- 1) When drafting the final report on Question 4/1, the members of the Drafting Group for Question 4/1 should take into account the comments made by the participants and the decisions adopted at the meeting of the Group of Rapporteurs in September 1996.
- 2) The draft final report and the draft Recommendation for Question 4/1, accompanied by the questionnaire prepared specifically for them in November 1995, should be sent to the institutions responsible for financing telecommunications in the developing countries.
- 3) BDT is invited to contribute to the work of the small group responsible for finalizing the report, in particular by contributing to the training of decision makers from the developing countries by organizing colloquia on the topic of telecommunication finance in the developing countries.

*Recommendation 1* – In so far as the private sector is increasingly called upon to provide financing to compensate for the insufficiency in traditional resources, the ITU Member States and Sector Members, the majority of which comprise representatives of potential investors, believe it is justified to propose appropriate Recommendations on this matter.

## **TOPIC I – WHAT ARE THE VARIOUS POLICIES FOR FINANCING INVESTMENTS?**

For the sake of simplicity, three traditional types of policy are identified: self-financing by the enterprise itself, recourse to State subsidies and the use of public development aid. Closer consideration will then be given to more innovative policies, such as partnerships and concessions, private funding and debt conversion.

### **How is the reinvestment of profits in the enterprise to be encouraged?**

Self-financing, i.e. the reinvestment of telecommunication operating profits in the sector, as a means of contributing to expanding activity, is a desirable objective as it constitutes the best way of ensuring sound and efficient operation of the service, of developing the service in tune with changes in basic needs, and of bringing the benefits of technical innovations to consumers.

However, such reinvestment can only be envisaged if, on the one hand, the business is profitable and, on the other hand, if the profits are freely assignable. If the business is not profitable, it is important to ascertain whether or not that is the result of a choice made by the owner of the firm, be it public or private. For example, a government may decide, as a temporary measure and for a variety of reasons, to keep prices artificially low and wages very high at the same time. It is logical in such circumstances for the government to grant public subsidies, where needed, for the financing of investments (see below).

In cases where profits are not freely assignable within the sector, for example where they have been earmarked in advance for other activities such as making up the deficit in the postal sector or the deficit in the overall State budget, it is a good idea – before looking for any other means of financing, which in any case will be difficult to find – to give the operator sufficient autonomy to release it from this practice.

*Recommendation 2* – The transfer of revenue between the State and the operator should be limited to the payment of dividends for the State's shareholding in the operator's share capital, to the payment of interest on the credits invested by the State or to the local business tax levied on telecommunication operators.

**Can investments be financed by State subsidies or public development aid?**

Where self-financing is unavailable or inadequate, it becomes necessary to turn to other resources. Government subsidies as a means of financing investment in infrastructure are a logical option when the owner of the enterprise keeps prices too low and wages very high (cf. above), but this does not make it a sound practice as it means that the enterprise's financial managers do not have to face up to their responsibilities.

The development banks and multilateral, regional or national institutions participated for a long time in the construction or reconstruction of telecommunication infrastructures, and may still sometimes lend assistance in that area, although they tend increasingly to restrict their lending to reputedly less profitable sectors, such as education or health. Some of these institutions, which traditionally made loans to governments and not directly to operators, are today turning their attention to new methods of action in the telecommunication field. States frequently saddled with debt see telecommunications as a sector from which it is easy to withdraw, given its attractiveness to both domestic and foreign investors.

The specific financing arrangements employed by financial institutions are varied, particularly since new sources of financing are being made available to the developing countries via their subsidiaries specializing in private investment. A first list of financial institutions offering resources for the implementation of telecommunication projects in developing countries in the private sector has been published by BDT.

**What is the purpose of *InfoDev*, the World Bank fund?**

For some years now, the cost of telephone communications has been observed to be falling in most countries, owing in part to lower equipment costs, surplus capacity on long-distance infrastructures, new technological advances, in particular in mobile services, the effects of worldwide deregulation and increased competition. This trend should enable the private sector to play an ever more important role in the financing of infrastructures. The World Bank launched *InfoDev* as a means of contributing to the advent of the information society.

This fund is intended to finance projects in the telecommunication and information technology sector aimed at promoting the information society in developing countries. *InfoDev* is a supplementary fund in relation to the regular budget of the World Bank. It is not a tool for the financing of infrastructures; such financing should continue to be provided by development banks like the World Bank, or by venture capital companies such as WorldTel, whose purpose is to channel private funds into telecommunication development in the least developed countries. *InfoDev* is a "consciousness-raising" fund, designed to provide advice, to initiate micro-projects capable of encouraging a more open-minded attitude on the part of local authorities, or to create a network of public and private lenders.

This fund should in particular serve to facilitate access to the information society for regions and countries which do not normally attract private investment, despite the best efforts of regulators, and it should also give priority to the topics adopted by the group of G7 countries (environment, education, health, etc.). There must be no question of imposing a single regulatory and legislative model: the liberalization and privatization programmes to be drawn up within this framework should be the subject of a timetable adapted to the particular features of countries.

The allocation of funds made available under *InfoDev* (roughly 10 million dollars a year) should in principle conform to the following breakdown: 35-40% for activities to stimulate local authority awareness, 20-25% for pilot projects (roughly 20 per year), 15-20% for reform of the sector, and 15-20% for information infrastructures. The main contributors to *InfoDev*, at the public sector level, are the governments of developed countries and, in the private sector, the major information technology and telecommunication companies.

Contacts should be maintained with the leaders of the *InfoDev* project and with financial sponsors in order to inform them of the orientations taken by ITU with regard to telecommunications development. It is also necessary to coordinate development initiatives and to enhance cooperation between the Bank, BDT and the study groups of the Development Sector.

### What type of concession is most appropriate?

Concessions involve entrusting the construction and operation of telecommunication facilities to a private or public enterprise. In a difficult budgetary climate, concessions may also be used to attract private investment for the financing of infrastructure among other things. Europe's experience of public service concessions dates from the 17th and 18th centuries (canals and bridges) and was developed during the 19th century (concessions for railways, water, sanitation, lighting, transport, etc.). At the beginning of the 20th century, concessional arrangements began to be applied to motorways, and more recently the practice has spread to cable, pay TV and telecommunications.

Public service concessions offer the twofold advantage – in a period of dwindling availability of budgetary funds – of facilitating access to private capital and at the same time easing the debt burden of States. They transfer the financial risk to the company having the concession, in exchange for the requirement of a higher return on the invested capital.

- Concessions also serve to introduce a business-minded approach in place of the constraints of administrative management, while bringing the benefit of a dynamic enterprise to the community as a whole.
- The authority granting the concession must, however, have a sound grasp of a number of parameters when negotiating a concession contract, in order to reduce the following uncertainties: traffic growth dependent on infrastructure, user sensitivity to traffic practices, investment and operating costs and variations in such costs over time, ways of financing infrastructure, legal and fiscal aspects, and the effect on profit forecasts of extra construction costs, delays in bringing into service, and the increase in real interest rates.

*Recommendation 3* – In the case of concessions for public service, the approving authorities must choose experienced partners, ready to commit themselves on a long-term basis, capable of assuming important risks, who will respect basic principles of public service (regular operation, equal treatment for users, and adapting the service to relevant evolutions) and fulfil universal service/access obligations.

### How do BOT, BTO, BLT and joint ventures work?

A Build-Operate-Transfer (BOT) operation involves the establishment of a network infrastructure by investors, to be operated by them for a number of years and subsequently handed over to the telecommunication operator. BOT is a common practice in the fields of transport and energy. It is an attractive exercise for investors if, by operating themselves the network they have financed, they reduce their risks and, hence, their financial burdens. It is also attractive for the countries which select this procedure, if the quality of service provided to the user is enhanced. It is necessary to define precisely, on a contractual basis, the expected effects of the BOT operation, especially since the complexity of some schemes limits their feasibility to large-scale operations.

The identification of a group of interested investors usually involves issuing an invitation to tender. The group awarded the contract must then set up a company to undertake the BOT project and enter into the necessary agreements with the interested parties. The duration of the operating phase is set in advance and depends on expected revenue and estimated costs – an assessment which may be subject to uncertainties. Under another variant, BTO (Build-Transfer-Operate), control over the investment is handed over to the operator immediately after the infrastructure has been put in place. Finally, at the transfer stage, the company responsible for the BOT or BTO operation carries out staff training and transfers the necessary technology.

In the case of the last variant, BLT (Build-Lease-Transfer), the successful bidders supply the switching and transmission equipment, as well as the outside plant for the infrastructure, and carry out the necessary tests. At that stage, user connection, network operation and revenue collection are the responsibility of the local operator which repays the cost of the infrastructure out of the revenue collected. Under this system, the successful bidder is left in control of the equipment, pending full settlement of the debt.

Joint ventures enable operators of public networks to offer new services and open new markets in partnership with outside investors. Each partner contributes complementary know-how and shares the risks of launching a new activity different from its main activity. A joint venture may be made up of companies normally considered as competitors; it offers the advantage of being much easier to set up than a BOT, but suitable rules are required to facilitate rapid decision making and to settle possible disputes.

*Recommendation 4* – Financing through BOT, BTO and BLT arrangements or joint ventures can produce a rapid boom in telecommunications in developing countries if they are able to negotiate skilfully and secure appropriate guarantees. Otherwise, other solutions may be preferable. The implementation of such arrangements may require simplification of the legal framework.

### **How are joint ventures and franchises to be encouraged?**

Current technological developments and the falling costs of alternative infrastructures are making it easier to overcome the obstacles to entry, whether technical or financial, which previously faced all potential investors in the sector.

Facilitating the establishment of joint ventures between local telecommunication operators and potential investors is one way of attracting local or foreign private investors to finance infrastructures. It is sometimes easier to mobilize such resources in order to launch new services involving specific infrastructure such as cellular telephony, possibly compensating for the loss of market share in traditional areas, than to attract them into the financing of basic infrastructure with a lower value added. Initially, the sale of a significant equity stake in incumbent operators could serve to attract a strategic partner into the financing of traditional infrastructure, while reserving the option of subsequently relinquishing a majority stake.

Consideration may also be given to the possibility of concluding contracts between telecommunication operators and private entities which are authorized to construct segments of a local network, and have easier access to capital and foreign exchange resources. These segments would then be connected with the operator's network under a franchise agreement establishing interconnection standards and a formula for dividing revenues. The operator could even retain the option of eventually acquiring the franchised enterprises.

*Recommendation 5* – It is essential to simplify the legal regime governing telecommunication development in order to facilitate the establishment of joint ventures or franchises between local operators and national or foreign investors, for example with a view to providing new services.

### **Could the WorldTel initiative offer new prospects for financing?**

WorldTel is a financing body set up less than two years ago for the purpose of financing telecommunication projects in developing countries with the assistance of private investors. The idea dates back to 1984 and the Maitland report which proposed, *inter alia*, the establishment of a multinational organization independent of the ITU, managed as a commercial company with efficiency in mind, responsible for implementing telecommunication projects on behalf of the poorest countries and for administering finance arrangements at world level.

This recommendation was based on the criticism of existing mechanisms for financing development projects and hence, implicitly, of the role played by the existing agencies (ITU, UNDP, World Bank, etc.). In particular, it was observed that:

- financial assistance from traditional finance agencies was not sensibly used;
- the earnings generated by the development of infrastructure and international traffic in particular were frequently diverted by governments in order to finance sectors other than telecommunications;
- financing based on concession or Build-Operate-Transfer (BOT) contracts were likely to facilitate the rapid development of telecommunications in the developing countries;
- the establishment of an independent venture-capital company would make it possible to achieve a degree of neutrality with regard to financing, as well as greater efficiency, while meeting the need for a commercial approach.

In the years that followed, there was a sharp decline in UNDP funds managed by ITU, while the World Bank gradually cut back its financing of telecommunication infrastructures, leaving this to its subsidiary with special responsibility for private investments. The results of the feasibility study were approved by the sponsors of WorldTel early in 1995, and the company was set up forthwith. It has already begun considering several projects, both national and regional. It is too soon to assess this initiative for promoting infrastructure funding.

#### **Do bilateral agencies offer appropriate solutions?**

The Canadian agency CIDA proposes to facilitate infrastructure investment in the developing countries, while contributing to the financing of social projects in those countries and promoting exports by Canadian industries.

A contract is thus negotiated, whereby CIDA receives payment for the required equipment in local currency, and the Canadian suppliers are subsequently paid in Canadian dollars by CIDA.

CIDA uses the money paid in local currency to set up a social development fund, managed in the host country and supervised by local and Canadian administrators. The fund is then used to finance projects aimed at combating poverty (education, health, water supply, irrigation, etc.).

The approach proposed by CIDA has the advantage of facilitating the extension of existing infrastructures, without relying on foreign currency, while at the same time contributing to social development.

#### **Establishment of a telecommunication development fund?**

The idea of setting up a telecommunication development fund, for the benefit of rural and isolated areas, for example, has been raised on several occasions in the past, in any event since 1984 (Maitland Commission report).

A feasibility study was carried out in 1995 for the Caribbean region. One obstacle to practical implementation of the project appears to be the choice of the fund administrator (development bank, commercial bank, regional telecommunication organizations, etc.). This type of project is also frowned upon by the entities which might be asked to make financial contributions (telecommunication and cable operators).

It was agreed that it would be extremely useful in due course to produce a consolidated review of contributions on this subject submitted to some of the colloquia and the content of the contribution from the United States attached in Annex II and, if necessary, to describe a number of case studies.

## **TOPIC II – WHAT CONDITIONS MUST BE FULFILLED FOR SECURING FINANCE?**

An attempt will be made in this part to describe the different conditions laid down by multilateral finance institutions, development banks, bilateral development aid agencies, etc. At the outset, they can be divided into two groups: sector liberalization and privatization of operators.

#### **What is the World Bank's policy for financing infrastructure?**

The World Bank considers that telecommunications in the developing countries are under-developed, owing to unsatisfied demand, traffic congestion, mediocre quality and reliability of services, limited coverage and the virtual non-existence of modern business services. The Bank blames this situation on investment levels well below those required to satisfy demand, unsatisfactory organization and inefficient management of enterprises, and inappropriate policies (lack of autonomy, lack of motivation, tariffs unrelated to cost structures, etc.).

The Bank has financed more than 130 telecommunication projects since 1949 (5 billion US dollars). After the Second World War, it contributed to the development of infrastructures. During the 1980s, it helped to improve the management of enterprises and it now intends to place emphasis on sectoral reforms (cf. *InfoDev* project, above). The level of World Bank funding for telecommunication infrastructure projects is destined to decline sharply in the years ahead.

This trend may be worrying in some respects. However, IFC is showing increasing interest in stakeholding in telecommunication projects.

### **What are the EBRD's conditions for financing of infrastructures?**

The European Bank for Reconstruction and Development was established in 1990 with the following aim: "in contributing to economic progress and reconstruction, to foster the transition towards open-market economies and to promote private and entrepreneurial initiative in the Central and Eastern European countries committed to and applying the principles of multiparty democracy, pluralism and market economics". The EBRD initially focused on promoting reconstruction, and hence the financing of infrastructure, in the countries of Central and Eastern Europe. As that task has reached or is nearing completion in many of the countries concerned, the EBRD is now tending, at least in the telecommunication sector, to bring its rates into line with market rates. However, it still has two main strengths in comparison with the commercial banks: it takes more risks on transactions while maintaining a margin in relation to the reference rate (LIBOR), and its project evaluation process, which compares with that of other banks, enables it to obtain funds at the best possible rate (AAA credit rating).

The EBRD mainly finances private activities (restructuring, privatizations, infrastructure projects, joint ventures with foreign promoters, etc.). Its minimum entry level is 5 million ECUs and its operations take four main forms: loans (63%, tending to decline), equity stakes (19% and rising), lines of credit (14%, stable) and guarantees to borrowers (4% and rising). Like the World Bank, EBRD is increasingly involving other public and private sources in the joint financing of its projects (banks and private financial institutions, export loan or official development aid agencies, World Bank, European Investment Bank, European Union via the PHARE and TACIS programmes, G7 countries). Apart from the quality of the investment project and its knock-on effect on the economy as a whole, the selection criteria applied by the EBRD are as follows: no more than 35% of total funding is provided for new projects; the external investment requirement is that much greater (over 50% in most cases) where a high level of technical know-how is required; and it gives priority to predominantly private projects (financed with a one-third minimum of own funds and a two-thirds maximum of loans).

It also uses macro-economic criteria to assess the state of progress of the countries of Central and Eastern Europe in their transition to the market economy: the private sector component of GDP; the annual number of privatizations and restructurings of small and large enterprises; the system of prices, wages and competition (government regulation or liberalization); the foreign trade and exchange control system (quotas, convertibility); and the functioning of the banking system. Each telecommunication project is monitored by the official responsible for the country concerned and the official responsible for telecommunications. The telecommunication sector accounts for 8% of funding granted by the Bank: EBRD has financed some 20 projects in the sector over 5 years, for a total of 4 billion francs.

Telecommunications are an essential component of the infrastructure of countries in transition. In the case of Romania, the EBRD granted a loan in 1992 to the national enterprise for the establishment of one million new lines; between 1992 and 1994, it helped the operator RomTelecom to reorganize and strengthen its commercial orientation; today, it is endeavouring to set up a new financing operation for the development of the operator's network, this time with private-sector involvement. Another example: in 1994 the EBRD granted a loan to the national operator in Kyrgyzstan, in close cooperation with the World Bank, with a view to developing and restructuring its network, and in order to encourage the development of the private sector. It should be noted that the average time-lag between presentation of a project and the actual availability of funds, whether in the case of the EBRD or the World Bank, is a very lengthy one.

In the telecommunication sector, some countries have already completed the overhaul of their regulatory framework, and the possibilities of eligibility for EBRD assistance with infrastructure investment have been all but exhausted (Hungary, Poland, Slovakia, Czech Republic). In these countries, the Bank is increasingly concentrating on smaller-scale operations (e.g. the network of Central European telecommunication agencies). In the years ahead, its operations should shift further East, on a massive scale: in Russia (cellular network in Moscow, under joint financing arrangements); in Ukraine (fibre optic digital telecommunications); in Lithuania (loan for lines to connect 14 000 new subscribers, restructuring of Telecomas); in Kyrgyzstan (joint-stock company), etc.



**How can maximum benefit be derived from a sale of equity stakes?**

Interesting examples drawn from the United States experience are given in Annex II.

It may be stated at the outset that, as far as our subject is concerned, privatization of the incumbent operator is not an aim in itself but is merely an additional means of financing. The sale of an equity stake to external investors is not just a question of dogma; in many cases, it constitutes the only means of injecting fresh resources for the State to make good a deficit or for the operator to finance its investments. A number of countries could thus no doubt be named where the continued existence of a monopoly has not lessened investment in infrastructure.

Where there is no possibility of finding financial resources internally, privatization or allowing external investors to acquire equity stakes in the operator must be accompanied by the necessary structural reform of the legislative and regulatory framework.

The disposal of equity stakes – a term which will be used here in preference to privatization – in the incumbent operator may be carried out in stages. The initial sale of a significant but minority stake in the operator is a means of testing the genuineness of outside investors' willingness to contribute to the development of a country's telecommunications. The sale of a majority equity stake is frequently advantageous when it takes place at a later stage, provided that the trial period has produced positive results.

*Recommendation 6* – Privatization, or the sale of an equity stake, must as far as possible be contemplated within a suitable regulatory and legislative framework, whether privatizations take place in stages or in one go, retaining the possibility of ensuring that infrastructure investment objectives are met while allowing investors to achieve the desired profitability.

**How should the debt of telecommunication operators be dealt with?**

In some countries, the many state-owned enterprises are virtually bankrupt. Telecommunication companies are not always spared this situation. The question of the treatment of operators' debt takes on crucial importance when liquidation or the rapid disposal of equity is required. Liquidation often takes the form of a transfer of the company's assets to preferred creditors – traditionally the tax authorities, the social security service, employees, local suppliers, etc. As for the debt itself (liabilities), it is usually transferred to the shareholders (in most cases, the State).

The elimination of the debt, through transfer to the State, offers the advantage of wiping the slate clean, as it were, and facilitates the entry of new private investors who do not have to saddle themselves with those liabilities. The creditors, on the other hand, find themselves holding a debt owed by the State, which is either irrecoverable or recoverable to a very limited extent, unless they are considered to be preferred creditors.

Liquidation and disposal of equity are more and more frequently preceded by a period of negotiation between the managers of the company and its creditors, in order to find the best possible solution for both parties. In such cases, conversion of the debt into shares in the capital of the new telecommunication company is often seen as an equitable arrangement.

*Recommendation 7* – In some cases of privatization, conversion of the incumbent operator's deficit into a share in the new telecommunication operator's capital would enable difficult financial issues to be resolved and the incumbent operator's capital stock to be replenished.

**How is the value of an operator's assets to be assessed?**

The financial evaluation of a telecommunication operator's assets is usually carried out either on the basis of the current situation, taking into account in particular fixed assets where available, or on the basis of the future situation, taking into account the trend in its activities (repeated present-worth calculation of cash-flow).

In both cases, the following parameters should be the subject of particular attention: legislative, budgetary and fiscal constraints, existing infrastructure, trends in the number of main telephone lines and planned new services, financing options and conditions, which vary according to the overall level of national debt, irrespective of the viability of telecommunication projects (State guarantee), the local currency/strong currency exchange, inflation and/or devaluations.

Telecommunications call for substantial infrastructure which may account for up to 80% of an incumbent operator's total assets, and which is frequently supplied by foreign industries. During periods of currency devaluation, the cost of replacing equipment rises inexorably. Consequently, the operator must have access to an ever greater quantity of resources in order to develop its network and meet the demand of its potential clients.

The assessment of the value of an operator's assets in a period of inflation must take account of the following aspects:

- a) The assessment must be based on the purchase cost of equipment. In an inflationary context, sufficient funds must be withheld from profits to permit the replacement of installations and equipment at current prices.
- b) The amortization of fixed assets must be based on the replacement cost, so as to enable enterprises to replace their used installations and equipment.
- c) Assets and liabilities must be the subject of re-evaluation in order to correct the balance-sheet distortions caused by inflation, and to create an appropriate basis for amortization.

*Recommendation 8* – An operator's real value is determined by the market. In evaluating an operator, account should be taken of the effects of currency fluctuations and high inflation, with the application of appropriate measures such as non-distribution of profits and dividends, amortization of replacement cost, re-evaluation of the balance sheet and foreign-currency debt restructuring, as well as anticipated future profit.

### TOPIC III – WHAT FACTORS ARE FAVOURABLE TO INVESTMENT?

Two sorts of factors favourable to both domestic and foreign investment can be identified: specific measures (implementation of legislative and regulatory adjustments needed for the development of the sector) and general measures. Here, we shall confine ourselves to presenting those among them which have a direct impact on the availability of financing for telecommunication investment, referring the reader where necessary to the other Questions dealt with by Study Group 1.

#### What reasoning does the potential investor follow?

The primary consideration for an investor is the choice of country. This choice depends on the level of economic growth, the stability of the legislative and regulatory environment, the possibility of obtaining financial aid from a development bank or financial institution, tariff adjustment mechanisms, possible technologies, etc. Substantial budget deficits and a lack of political or legal stability are usually inhibiting factors. Similarly, the taxation system and the amount of State levies on profits are of crucial importance. Some types of inordinately high taxes on imports of telecommunication equipment are detrimental to the development of the service, jeopardize the entry of investors and unduly increase tariffs and the cost of providing services. Finally, the existence of general investment regulations or specific telecommunication regulations, relating *inter alia* to freedom of movement of capital and the repatriation of profits, play a decisive role in the investor's choice of a country.

The next consideration is the choice of the project, which must provide a rapid return for the investor. The higher the "risk" category of the country, the more rapid the return on investment needs to be. Private investors have few concerns as to principle about competition or monopolies, and they are usually not averse to benefiting from the substitution of a private monopoly for a public monopoly, if that is the most profitable solution. Finally, the technical criteria of the project constitute a factor of considerable importance. The line of reasoning adopted by the potential investor resembles the following, based on a World Bank study awaiting publication:

- If a teledensity of (10%) is required in a peri-urban area of (40 km) diameter, the investment per line must be brought down to (x ... \$), which is possible with the technology (m ...), with an annual income per line of (z ... \$), in order to secure a return on the investment in (z ... years).
- If, on the other hand, it is necessary to achieve the same objective in a peri-urban area of (200 km), where the investment per line amounts to (...), several technologies are possible (a, b, c, ...), but the minimum annual income is greater (...)."

Lastly, the investor looks for maximum internal flexibility, facilitating rapid adjustment of the means of production to trends in the demand for goods and services, since any limitation of the company's room for manoeuvre is likely to have an adverse impact on the profitability of the investment. Any decline in profitability deters the company from reinvesting locally and jeopardizes the entry of new investors. The latter also demand a minimum visibility of external risks, namely, in particular, those relating to changes in the legislative and regulatory framework, labour legislation, guarantee mechanisms or regulations governing investments (see below). The investor quantifies these risks carefully, in order to anticipate their effects on the viability of the planned operation, and any uncertainty is offset by the introduction of a guarantee mechanism at the national or international level.

*Recommendation 9* – In order to allow all the decision makers to evaluate independently the risks of investing in their country's telecommunication sector, as seen by potential investors, it will be necessary to prepare and make available an analytic grid and some concrete examples. In particular, some factors such as the tax regime, the amount of state taxes on benefits, the freedom of circulation of capital and of repatriation of profits, etc., play a considerable role in the choice of investors.

#### **How is access to international capital to be facilitated?**

International investors usually consider telecommunications to be one of the potentially most profitable sectors in developing countries, owing to the substantial growth potential. Several methods of financing are available on the international financial markets: debt conversion, acquisition of equity shares, project funding, joint ventures, supplier credit, etc. Each method of financing offers a trade-off between the risk taken and the expected gain: for example, the acquisition of equity stakes in operators potentially offers one of the highest degrees of profitability, but less flexibility and security (over time) in the event of resale.

Floating telecommunication companies on the stock markets, for example in connection with a sale of equity, would serve to facilitate exchanges between local and foreign investors and to reduce the risks associated with the lack of capital mobility in the developing countries.

#### **What legislative and regulatory changes should be implemented?**

Legislative and regulatory reform in the sector are a factor of essential importance to the investment decision. The basic principles are not new: separation of posts and telecommunications, separation of the operating and regulatory functions, gradual opening of the sector to competition, more flexible regulation of foreign investment.

Once the principle of these fundamental changes has been adopted, the investor attaches great importance to the predictability of future changes in the legislative and regulatory environment. For this reason it is desirable that, in addition to these general principles, a phased timetable should be adopted, varying in length between three and ten years according to the countries concerned, and designed in particular to:

- 1) implement the separation of posts and telecommunications as an immediate priority;
- 2) in the short term, separate the regulatory and operating functions;
- 3) in the medium term, open up mobile and/or value-added services (data transmission, satellites, terminal equipment, etc.) to competition;
- 4) in the longer term, open up long-distance communications to competition; and finally
- 5) in the long term, allow competition to prevail in the field of local telephony.

*Recommendation 10* – To make investing in telecommunications even more attractive, the following measures may be contemplated:

- accession to WTO agreements;
- displaying the political will to implement the following regulatory and legal changes and setting a precise timetable:
  - i) State commitment to establishing a clear telecommunication development policy, including in particular separation of posts and telecommunications;
  - ii) separation of the regulatory and operating functions, in order to allow operators to adopt a commercial approach;
  - iii) opening certain services, such as mobile services and value-added services, to competition and private investment;
  - iv) opening basic services and telecommunication infrastructures to competition where appropriate;

- introducing legislation guaranteeing fair competition;
- considering the possibility of tax exemptions;
- guaranteeing free circulation of capital;
- guaranteeing the possibility of repatriating profits;
- considering cooperation with neighbouring countries so as to establish guidelines on multilateral investments and achieve economies of scale.

*Recommendation 11* – In order to allow greater capital mobility and to reduce some of the risks which are important to investors, it would be desirable to encourage access to stock markets and other arrangements such as debt conversion, equity investment, project financing, joint ventures and supplier credit.

#### **TOPIC IV – HOW TO OBTAIN CREDITS FOR INVESTMENT FINANCING**

The Group of Rapporteurs acknowledged the importance of this topic for developing countries and stressed the need for further analysis and consolidated review (under the auspices of BDT), so as to obtain as detailed a picture as possible of the terms and conditions practised by banks and financial institutions as regards loans to finance investment in the telecommunication sector. With this in mind, it was agreed that an initial analysis and consolidated review could be carried out using the output of the various regional telecommunication finance and trade colloquia which BDT will be organizing between now and WTDC-98.

## PART B

### TOPIC V – CALCULATING THE COST OF SERVICES AND ADJUSTING TARIFFS TO COSTS

This chapter sets out the concepts that can be used to implement a cost-orientated telecommunication tariff policy. It proposes a method for evaluating costs, whether they be network or financial costs, for classifying them and then allocating them to profit centres and ultimately to telecommunication services.

#### **How should tariffs be set?**

The size of the profits earned by some operators in developing countries shows that, with management tools suited to local conditions, *inter alia* with regard to tariffs and collection of payments, some segments of the telecommunication network and services market may be profitable, including in these countries. Consideration should be given, however, to means of ensuring satisfactory and balanced development of the services offered in both urban and rural areas.

A number of objectives are to be taken into account when setting tariffs. One of the most important, in the initial stages, is probably to duly amortize the investments made and to generate a sufficient surplus to ensure the continuity and expansion of the service: it is also possible, from the outset, to make financial allowance for the objective of universal accessibility of the service and to provide for an extension of investments to rural or isolated areas which are not always profitable. Subsequently, a gradual reduction of tariffs in line with the reduction of unit costs may be necessary in order to maintain competitiveness while fostering development of the service. Finally, the compatibility of regional and area tariffs is also a selection criterion of not inconsiderable importance for the setting of tariffs.

The main difficulties encountered by the developing countries in this tariff adjustment exercise are the lack of sufficiently precise data on costs, lack of knowledge of the rules for the establishment of tariffs geared to the market, the inadequacy of ITU guidelines for the introduction of a computerized accounting system with clearly enunciated cost data, and, lastly, the higher cost of equipment (and hence of services) in rural and isolated areas, although per capita income in those areas is lower than in the towns.

Countries use two methods of setting tariffs, one synthetic, the other analytic. The synthetic method, which is usually adopted where no data on real costs are available, is based on locally acquired experience as well as on the practice of neighbouring administrations in defining the range of tariffs. The analytic method, which is more rational, involves the establishment of an analytical accounting system in order to determine costs (on the basis of such factors as amortization, financial obligations, materials, manpower, taxation and services provided by third parties).

#### **Conditions and objectives of a cost calculation and management system**

Success in the implementation of a cost calculation and management system depends on the prior definition of appropriate accounting standards and the adoption of an integrated cost accounting and management system. It is then necessary to identify cost information requirements, so as to determine the costs related to the provision of telecommunication services and distribute those costs along the entire chain of activity. Finally, it is essential to employ staff proficient in accounting and budgetary procedures.

The cost calculation and management system that is established must achieve several objectives if it is to be successful: it must make employees at all levels more alert to costs, serve to pin-point excessive costs in order to improve productivity, facilitate structural changes connected with the redefinition of accounting responsibilities, contribute to the elaboration of cost standards (these being helpful in evaluating needs and determining real costs), and help to determine the pricing policy for telecommunication services.

Eight surveys aimed at collecting the necessary cost data are proposed for implementation during the period 1995-1997 by developing countries which wish to adopt a simple method:

1) *Gather and classify information on costs*

If the information collected, it is desirable to distinguish between the network cost components and the financial cost components. The collection of *network cost information* makes it possible to link the cost of investment with the rate of depreciation, on the basis of the following criteria: local switching, local business network, trunk switching, trunk transmission, international transmission, subscriber terminal equipment. Account should also be taken of the costs associated with common support systems, such as the information technology system (software and hardware), the accounting system (equipment and software), operational systems (fault management, invoicing, etc.). It is then necessary to list assets, indicating the investment allocated to each one, including support services (such as transport, or specific investments). The items of *financial cost information* used to group expenditure on a service are the following: the return on investments (taking into account their cost and the cost of capital charges), the depreciation of investments (capital loss), operating costs directly chargeable to the service, indirect operating costs (expenditure connected with general administration or expenditure shared by several services), and financial expenses and loan charges (percentage of total expenses and charges).

2) *Analyse expenditure and groups of expenditure*

To permit overall analysis, the network components and financial components relating to the provision of a service are grouped together by item of expenditure, for example under the following headings: marketing, consultants' fees, staff costs, amortization, operation and maintenance, financial obligations and loan charges, training, management overheads (including common support systems), administration. The expenditure under each heading corresponds to direct or indirect costs when allocated to a profit centre.

3) *Identify and classify the profit centres*

Telecommunication services are grouped together in profit centres (combining income, expenditure and profitability) such as the following: telephony (main lines), payphones, mobile telephony, radio paging, telex, messages, data, leased circuits, television, etc. The income generated by each profit centre (i.e. by each service) must then be analysed.

4) *Collect information on traffic*

Several types of traffic information must be obtained for more detailed study for the establishment of costs and tariffs:

- measurements of traffic intensity;
- measurements of call duration, call set-up and call attempts;
- period of measurement;
- definition of the method and process of obtaining traffic data;
- information on traffic volume (origin and destination, access and utilization, day and time period, fixed or variable charge, etc.).

5) *Principles used to allocate and share costs*

A basic model then has to be developed explaining how the cost components are connected to the network, and subsequently to the profit centres, by direct allocation to a centre or by sharing among several entities. This outline classification makes it possible to break down costs by service and then prepare for a cost-orientated tariff structure.

6) *Tariff information from ITU-T for the different services*

Two types of component are distinguishable in the tariff structure of a service: non-renewable charges (installation, connection or registration fee), and renewable charges (periodic access charges, call charges). The periodic access charge is a rental fee for an installation available to a subscriber (basic telephone, line, share in the cost of installation and amortization of switching equipment, share in maintenance). It is either fixed for all subscribers to the same service, or variable according to the service provided to the subscriber. The call charge is adjusted according to the duration of communications, the time at which the communication is set up, and the radial distance.

7) *Other factors to be taken into account*

Other parameters must also be included in the study of costs: the standard of living of the consumers; inflation forecasts (forecast variation in costs during the period of application of the tariffs); ongoing or planned technical improvements; the level of telephone penetration and the elasticity of demand; specific service conditions in town and countryside, etc. The relative weight given to these parameters should make it possible to calculate unit costs on the basis of the investments made and the traffic generated. A very brief presentation of the results obtained implies indicating, at the very least, for each service, annual income and expenditure, the respective percentage figures, traffic volume, the subscriber base served, and unit costs.

8) *Guidelines for levying charges*

The overall cost of telecommunication services must be at least covered by the total income derived from the services in question. Accordingly, it is essential to establish a tariff structure from which the minimum level of income to be achieved can be determined. It is also desirable to calculate the contribution of each service to the operating profit or deficit.

*Recommendation 12* – Countries which do not have sufficient information on costs are not able to put in place an adapted pricing system. Cost-orientated pricing implies replacing a synthetic method of accounting by an analytic method. With this in mind, at least eight guidelines are proposed to the developing countries which wish to adopt complementary methods for collecting the necessary data on costs and determining tariff structures and levels which are cost-related:

- 1) Gather information on costs and classify it.
- 2) Analyse expenditure and groups of expenditure.
- 3) Identify and classify the profit centres.
- 4) Collect information on traffic.
- 5) Define the main principles used to allocate and share costs.
- 6) Use cost models developed by Regional Tariff Groups from ITU-T.
- 7) Implement an analytical accounting system on a step-by-step basis.
- 8) Establish guidelines with a view to assuring a better relationship between costs and tariff structures.

## **TOPIC VI – TARIFF TRENDS?**

It emerges from the survey carried out by ITU-D Study Group 1 that the Recommendations produced by the Standardization Sector provide answers to some of the problems encountered by the developing countries, and in particular the problem posed by the evolution of international accounting rates. However, a number of specific problems remain to be resolved, for example in connection with call-back, refile and resale of services.

### **The way ahead for international accounting rates and new services such as call-back**

Two principles were adopted in 1996 by ITU-T Study Group 3: on the one hand, the accounting rates will be apportioned equally (50/50) between operators in the terminal countries for each direction of traffic; on the other hand, division other than 50/50 may, however, be adopted if both operators agree that the accounting rates established between them are genuinely cost-orientated, and that the costs incurred by each operator for the provision of international telephone services are not equivalent.

The existing accounting rate system is being challenged by alternative calling procedures, such as call-back, simple resale and "refile" practices, by the development of international virtual private networks and by the introduction of a system of unrestricted competition in a growing number of countries. Accounting mechanisms that take account of the rules applicable to trade in services will gradually prevail under the pressure of market forces, since transmission costs will continue to decline on account of technological developments and alliances between operators, while the conditions of access to national networks for operators will tend to be governed by commercial interconnection agreements based on the principles of non-discrimination.

Several trends are visible at the present time: a drastic reduction in accounting rates in the relations between liberalized countries; a rapid decline in tariffs between Member countries of the OECD; the offer of differentiated tariffs to business customers with discounts for heavy traffic; and the gradual disintegration of the current system of international accounting rates. The regulatory authorities could choose to intervene in three ways: by exercising control *a priori* (prior approval of accounting rates at the national level), or *a posteriori* (formulation of critical recommendations), or by arbitrating disputes (between operators).

A number of countries have found that call-back practices rely on the persistence of a substantial tariff differential between certain countries, whether developed or developing. Although countries are encouraged gradually to adjust their tariffs to costs, this differential – which in the developing countries stems from structurally higher costs – might not disappear, even in the long term, thus continuing to weigh heavily on the financial results of operators.

Despite the difficulty of quantifying the traffic attributable to call-back, which makes it difficult both to control practices such as constant bombardment and to evaluate the financial impact on the profits of operators in the developing countries, it is highly desirable that countries take a clear stand, in their national legislation, for or against call-back.

Due to the effective participation in our work of representatives from Study Group 3 from the Standardization Sector, we have been able to keep participants informed on the studies under way on the issues of evolution and reform of the accounting-rate system and accounting rates restructuring. Concerning call-back, it is recommended that developing countries, jointly or individually, quickly establish a clear policy on the prohibition, restriction, or authorization of call-back in their countries, and inform ITU accordingly.

In this field, the Telecommunication Standardization Bureau (TSB) has already collected a lot of useful information on ITU Member States' policies for the regulation of call-back procedures.

## Conclusion

This section of the report will not simply restate the main conclusions reached in the course of the study, which will be found in the Recommendation on policies and ways for financing investment in infrastructures in the developing countries; instead, it would be possible here to define the role that ITU could play, drawing conclusions from the first stage of our investigation.

Under the terms of reference assigned to Study Group 1 by WTDC-1994, the question to be answered was the following: "How are telecommunication infrastructures to be financed?". Two things become apparent in the course of the ensuing discussions: firstly, that the reply to the question implies choosing among the possibilities on offer, which managers are not qualified to do unless they have been trained in financing techniques: secondly, that the question is irrelevant in cases where the investment is considered to be profitable (in such cases, funding is always found).

On the other hand, if there is no certainty of profitability, the question then becomes a much more difficult one: "How to finance non-profitable investments?". The answer is again straightforward: "It is no longer possible". The governments of both developed and developing countries no longer have the necessary resources, neither do the multilateral or bilateral finance institutions or the telecommunication operators which are increasingly confronted with competition. In fact, the challenge to operators is to learn to put forward viable and bankable projects. Here again, there are no ready-made solutions.



It is notable that some authorities in a monopoly situation have successfully implemented solutions based on common sense and sound management, without altering the legislative and regulatory framework, by bringing tariffs more in line with costs and by managing to generate sufficient cash-flow to continue to invest. Others, when appealing for domestic and foreign investment, have overhauled their investment legislation and attracted the necessary capital to meet the needs of their populations.

However, the greatest challenge would be to make investment in infrastructure intended for isolated or backward areas profitable. In fulfilling its mission of promotion and technical assistance for the developing countries, the Development Sector must continue to seek solutions without being dogmatic; however, the expectation is for it to do even more.

The Development Sector should study the possibility of contributing to the emergence, in developing countries where it is difficult to make telecommunications profitable, of regional or subregional telecommunication markets with sufficient critical mass to enable returns on infrastructure investment on a larger scale than on the local level. In these regions, the Development Sector could contribute to the harmonization of the rules governing national and foreign investment, and to the implementation of appropriate regulations at regional and subregional level. The Development Sector should encourage the partnership of potential investors, most of whom participate as members in these studies, to create innovative financing structures adapted to mobilizing resources in favour of rural or isolated areas, for example through the creation of a telecommunication development fund. In particular, a report should be drawn up on the follow-up since 1998 with respect to the principles contained in Resolution 3 of the World Administrative Telegraph and Telephone Conference (Melbourne, 1988).

## ANNEX I

**Analysis of the responses to the questionnaire**

To sum up briefly, it will be noted that roughly 50% of the countries considered have already undertaken a programme of measures aimed at encouraging domestic or foreign investment in the telecommunication sector, that 30% of them have developed models for adjusting tariffs to costs, and that only 20% say that they have a formal method of calculating the costs of telecommunication services.

*41/42: Which are the most urgent problems concerning the telecommunications sector in your country? What other factors hinder the optimum use of your current telecommunications infrastructure?*

The most frequent problems stated included out-of-date equipment, and the lack of spare parts, which is explained by the high cost of telecommunications equipment. The absence of credit to finance infrastructure, the insufficient promotion of private investment, and managers' lack of training in finance were also mentioned. The lack of customer solvency was rarely stated.

*43/44: What national policies on financing will enable you to secure the investment required for the development of your infrastructure? Which sources of investment are used to finance telecommunications infrastructure in your country?*

The responses show that financing is used differently depending on the type of investment envisaged. Thus, most of the operators which make a profit are self-financing (e.g. using profit made on fees and fines) or use government subsidies (received in accordance with the contractual plan) to implement small-scale investments and minor projects (less than \$500,000).

*A contrario*, major investment operations (more than \$500,000), in particular in rural areas, are subject to external financing or co-financing. This is the case for supplier credit, and for bilateral loans (Saudi Arabia, Belgium, Canada, United States, France, Japan, Kuwait, Nigeria, Sweden, etc.) or multilateral loans (IDA, ADB, EBI, IDB, IBRD, ECOWAS, ADF, AFESD, etc.).

The mechanism for allocating external loans, most often granted to the State and then reallocated in instalments to the telecommunications operator, is stated as a major source of difficulty. On the other hand, the guarantee that loans will be reimbursed by the State is considered to be a condition *sine qua non* for an LDC to actually obtain the necessary financing: several of these countries stated that government backing has become less and less common since 1990.

These countries stated finally that national private banks or the local financial market (shares, bonds, securities, etc.) do not yet present credible alternatives to the traditional sources of financing, and one response even suggests reserving public loans and self-financing to investment in basic and emergency services, keeping private investment for other services.

In general, the responses stressed the need for more flexibility in public policies. The measures suggested were, for example, the freely convertible currency, removal of restrictions on exchange controls, and the implementation of a code with more incentives for investment.

*45: How do you use these funds?*

Most of the countries questioned used these funds to buy and set up new equipment, for maintenance (spares and supplies) and, if possible, to extend existing networks (rural projects). Some responses indicated that these funds were also used to support institutional reform or for building works (major construction). Several responses heavily criticised the fact that the redistribution of the funds is controlled by the Ministry of Finance.

46: *Which other sources of finance are available but not used?*

In general there was little response to this question. The sources cited were most often local investors (such as joint ventures, BOT, or BTO), local commercial banks, financial market (shares, bonds, loans), or supplier credit, due to the restriction on exchange controls.

47: *What are your training needs in this field?*

Training is particularly needed for projects, either for the evaluation of their profitability, for assistance in their preparation, for elaborating the financial framework to be presented to creditors and banks, or even their financial supervision. In particular, several responses criticised the lack of training in negotiating external assistance or with financial institutions.

A second type of need which was noted concerns everyday management (economic analysis, financing strategies, cash flow management, management of exchange rate risk and interest rate risk, accounting and billing, cost calculation, cost-oriented tariffs, debt management, etc.).

48: *What are the conditions and limits for obtaining financing?*

Transparency and better forecasting are often demanded of developing countries in return for financing. Compliance with the following conditions is necessary: separation between postal services and telecommunications, the readjustment of the legislative and regulatory framework, the relative financial autonomy of the operator, satisfactory liquidity and financial ratios (debt, reimbursement capacity, etc.), particular conditions for calls for tender, the strict respect of reimbursement periods, State guarantees.

A number of responses also indicated that the sole condition for obtaining financing from some of the development banks was to commit oneself to liberalizing the sector and privatizing the main operator, with no room for negotiation. The final condition which was mentioned was the necessity to have a return on investment above 20%, and sometimes much higher in the case of fully private investment.

Limitations on financing the most often cited are: high interest rates, the State's capacity to reimburse (some are far too indebted to be able to hope for further credit), the absence of free choice of equipment and suppliers (the creditors from industrialized countries often demand that the finance obtained be used to buy equipment produced in their countries) or even a dissuasive tax and customs regime.

Lack of foreign currency also limits operators' capacity to reimburse and hinders investment. Often the legal status of the operator disallows financing in a foreign currency, whilst the local financial market is limited. Another limitation which was mentioned is the increasingly difficult economic situation in the developed countries, which gradually restricts their capacity to provide aid.

Last remark: in the countries where strict control over telecommunications investment is maintained (all loans must, for example, be countersigned by the Central Bank, the Government and Parliament), in general liberalization of the sector is considered to be the only means of bypassing bureaucracy.

49: *Which actions have been undertaken in your country to create a favourable climate for investment? Of these, which are the most appropriate or effective?*

Of the measures taken recently, we can take for example: the new code governing investment, the liberalization of foreign investment, fiscal incentives, the withdrawal of exchange controls, partial or completely convertible currency, the removal of price controls, devaluation (particularly for countries in "zone franc"), the decrease in inflation, the amendment of labour law, and sometimes the return to a market economy. When a new investment code is put in place, in general it provides no specific provision for the telecommunications sector.

In the telecommunications sector, specific action was also taken recently: the separation between postal services and telecommunications, a new regulatory framework, the setting up of an independent regulatory authority, the granting of cellular licences, and pricing freedom for private operators. The measures envisaged for the coming months and years are: the possibility of repatriating profits and dividends, the reduction of capital gains tax (or even the creation of a free zone), convertible currency, and the liberalization of equipment purchasing.

The two measures underlined as the most effective are the implementation of an investment code specific to the telecommunications sector, and increased freedom in pricing. Other measures are expected such as a reduction in interest rates, but despite their probable efficiency on investment, the developing countries have difficulty in controlling them.

50: *What other actions should be undertaken in order to encourage a favourable climate for investment?*

The general recommendations are the return to political and economic stability, lower inflation, interest rates and tax, improved local living conditions (transport infrastructure, training, etc.), reduced bureaucracy, freer trading conditions via the adoption of free trade treaties, and also the setting up of a specialized investment agency. Specific actions to be undertaken for telecommunications which are supported in general are the revision of the legislative and regulatory framework and the setting up of an independent regulatory agency.

## ANNEX II

**Contribution to the Final Report on financing policies, ways and techniques****II.1 Financing Policies, Ways, and Techniques**

Governments have long recognized the pressing need to attract large-scale and relatively immediate capital into the telecommunications sectors of their national economies. Capital resources, however, from both the public and private sectors, are becoming increasingly strained. Within a country, telecommunications projects vie for capital with other infrastructure development projects. Attracting foreign capital means competing with telecommunications development projects in other countries and regions. In such an environment, telecommunications operators must compete to obtain those resources. To be more competitive requires better management, achieving greater efficiency, and becoming more profitable. Limitations on direct investment, unstable economic conditions, low levels of national income, and an uncertain political climate may all create barriers to investment. Thus, government officials and telecommunications operators will need to remain open to new ideas and approaches to attracting investment in the sector.

NOTE – USA Contribution to ITU-D African Regional Development Conference, Abidjan, Côte d'Ivoire (May 1996), page 571.

**II.2 State Aid****II.2.1 State Subsidies****II.2.1.1 Current Universal Service Support Mechanisms in the United States**

The Federal Communications Commission (FCC) currently has in place certain explicit support mechanisms directed at increasing network subscribership. Some aim to reduce rates in high-cost areas – the Universal Service Fund and Long-Term Support – whereas others aim to make service affordable for low-income consumers – the Lifeline and Link-up programs. Today, the current system consists primarily of a number of implicit subsidies at the state and, to a substantially lesser extent, federal levels. In fact, of the three implicit subsidy mechanisms – geographic rate averaging (in which urban areas subsidize rural areas), subsidizing residential lines through business lines, and interstate access charges – only the interstate access charge system has been regulated on the federal level by the FCC, and this contributes the smallest subsidy of the three.

NOTE – *In the Matter of Federal-State Joint Board on Universal Service*, Report and Order, CC Docket No. 96-45, adopted May 7, 1997, released May 8, 1997, paras. 10 and 12, pages 9-10.

The existing system of largely implicit subsidies is not sustainable in a competitive environment. Today's implicit subsidies – high access charges, high prices for business services, and rate averaging over broad geographic areas – are thus inappropriate. In response, the FCC has taken corrective measures in decisions issued in May 1997. Specifically, the FCC has made various reforms to the existing rate structure for interstate access that are designed to move access charges, over time, to more economically efficient levels. The intention in the future is to implement the market-based approach adopted in May that reforms the access charge system, and give carriers progressively greater flexibility in setting rates as competition continues to develop. These changes will gradually replace regulation with competition as the primary means of setting prices and facilitating investment decisions. The FCC also adopted a prescriptive safeguard to bring access rates to competitive levels even in the absence of competition.

**II.2.1.2 Explicit Subsidies**

The Universal Service Fund, also known as the High Cost Fund, is designed to preserve universal service by enabling carriers with very high costs, i.e. those whose costs per line exceed the national average by more than 115%, to charge local exchange rates that do not substantially exceed rates charged by other companies. Currently, interexchange carriers having more than 0.05% of industry presubscribed lines pay into the fund.

The Universal Service Fund is administered by the National Exchange Carriers Association (NECA). Local exchange carriers are required to submit certain cost data to NECA on an annual basis. Based on an established criteria, NECA calculates for companies whose costs are greater than 115% of the national average, the level of expenses that each is entitled to reassign to the interstate jurisdiction for the following year.

### **II.2.1.3 Long-Term Support**

Its purpose is to ensure the continuation of nationwide average pricing for interstate toll charges. Local exchange carriers receiving Long-Term Support participate in what is called NECA's common line pool. Participants are predominantly small and medium-sized exchange carriers who have carrier common line rates that would be above the industry average. Carrier common line charges cover the non-traffic sensitive costs associated with access to the network. Due to the assistance they receive from participation in the pool, however, these carriers can charge an average rate for common line access.

### **II.2.1.4 The Lifeline and Link-up America Programs**

The U.S. Federal Communications Commission participates with the States in promoting increased telephone subscribership in two principal ways: the "Lifeline" and "Link-up America" programs, which help low-income subscribers pay for the costs of telephone service. Almost all of the 50 States participate in at least one of the two programs. These programs began on April 1, 1989, and are funded by charges assessed on major interexchange carriers in proportion to their presubscribed lines for interstate service. Currently, each major carrier is assessed a charge of (approximately) less than 10 cents per month per customer line served.

Currently, 44 States, including the District of Columbia and the U.S. Virgin Islands, participate in the Lifeline program. This initiative helps low-income households pay monthly service costs. The Link-up America program helps poor subscribers pay the installation costs required to first receive service. Both programs require State certification of subscriber eligibility; the Lifeline program requires State matching funds.

Subscribers eligible for the Lifeline programs generally receive benefits of about \$8 per month (consisting of a waiver of the federal subscriber line charge plus matching State rate per month reductions). In 1996, approximately 5 million Lifeline subscribers received \$148.2 million in federal lifeline assistance. The Link-up America program pays one-half of connection charges up to \$60.00. In 1994, about 861 000 households received \$19.2 million in Link-up assistance.

### **II.2.1.5 The Telecommunications Development Fund**

The Telecommunications Development Fund was created by the Telecommunications Act of 1996 which came into force in February 1996. Its purpose is fivefold:

- 1) to enhance competition in the telecommunications industry by promoting access to capital for small businesses;
- 2) to stimulate new technology development;
- 3) to promote employment and training;
- 4) to support universal service; and
- 5) to promote delivery of telecommunications services to underserved rural and urban areas.

The fund has a board of directors consisting of seven people appointed by the Chairman of the FCC. Four of the directors are representatives of the private sector; three are representatives of the government: one from the FCC, one from the Small Business Administration, and one from the Department of the Treasury. The Chairman of the fund is to be from the private sector (see Note). Directors are to include members with experience in a number of the following areas: finance, investment banking, government banking, communications law and administrative practice, and public policy. Directors will serve five-year terms.

NOTE – At the time of writing, the Chairman was Solomon Trujillo, President, U.S. West.

Deposits the FCC requires in order to qualify to participate in a system of competitive bidding (auctions) are placed in an interest-bearing account at a financial institution designated by the FCC after consultation with the Secretary of the Treasury. Interest accrued on the account, which is made up of bidder's deposits, is transferred to the Telecommunications Development Fund. Currently the fund is capitalized with \$25 million. Additional sources of money to capitalize the fund include congressional appropriations, contributions/donations, and repayment of loans, equity or other extensions of credit made from the fund.

Proceeds in the fund shall be used to make loans, investments, or other extensions of credit to eligible small businesses (see Note); to provide financial advice to such businesses, to conduct research, studies or financial analysis and to cover expenses associated with the administration and management of the fund.

NOTE – Eligible businesses are those engaged in the telecommunications industry that have \$50,000,000 or less in annual revenues, on average over the past three years.

The Fund will be audited annually, and a report of the audit will be furnished to the FCC and the Secretary of the Treasury, who will, in turn, report the findings to the President and Congress not later than six months following the close of the fiscal year.

#### **II.2.1.6 Chile's Rural Telecommunications Development Fund**

NOTE – *A Survey of Universal Service: Traditional and Innovative Approaches*, R. Stephens, FCC International Bureau, September, 1997.

*Overview:* The 1994 Telecommunications Law that transformed Chile's telecommunications markets into the most competitive in Latin America also created an innovative universal service program. The 1994 law established a four-year Rural Telecommunications Development (RTD) Fund to provide a "direct" and "transparent" subsidy that would create an incentive for companies to install public payphones or "call centers" in rural areas and low income urban areas. RTD funds can only be used by the winning bidders to subsidize a fraction of the initial infrastructure investment costs. RTD funds cannot be used to subsidize service or operating costs. The RTD is administered by SUBTEL, Chile's regulatory body, whose policies support eliminating all "hidden" subsidies. The Chilean legislature is expected to issue in 1997 a new universal service program that will take into account the lessons learned from the administration of the RTD Fund between 1994 and 1997.

*Objective of Program:* The legislative mandate of the RTD is to increase the number of public payphones in rural and low-income urban areas. SUBTEL has noted that the RTD may also have a multiplier effect since companies that receive RTD funds can use the infrastructure they build for the public payphones or call centers to also provide "non-subsidized" service to residential and business subscribers.

*Source of Universal Service Funds:* RTD funds come from the annual government budget and are allocated to SUBTEL. These earmarked funds come from the general government revenues that are raised through income taxes and other sources. Chile does not use revenues from international settlement payments for RTD funds or to subsidize universal service. The RTD was designed to foster universal service in a manner that minimizes market distortions.

*Allocation of Universal Service Funds:* Since 1995, SUBTEL has allocated RTD funds to companies through an annual competitive bidding process. The competitive bidding process is initiated when SUBTEL, after consulting with regional and local governmental entities, issues an annual prioritized list of RTD projects. The number of RTD projects fluctuates each year.

Each RTD project requires that a certain number of public payphones or call centers be installed in a given rural or low-income area. SUBTEL assigns an "RTD subsidy" for each project and issues a public notice calling for technically-qualified companies to submit bids for one or more RTD projects. The bids must include information on the "minimal service area", the maximum tariffs that will be assessed on users, and the subsidy amount requested. Bids can also provide information on the number of additional residential or business telephones that may also be served by the infrastructure used to serve the payphones or call centers. The "maximum tariff" is set by the bidder and is only applicable to the users of the public payphone or calling centers. Tariffs assessed on the additional residential or business telephones can be set and modified by the service provider as deemed appropriate.

RTD funds can only be used by the winning bidders to subsidize a fraction of the initial infrastructure investment costs. The remaining costs are borne by the companies and can be recovered through revenues raised from providing service. Bids for each project are opened during a public meeting, and the bid that has the lowest "RTD subsidy" wins. Companies that receive RTD funds are not given any exclusive market rights for the areas they serve.

*Statistics & Results:* In 1995, SUBTEL allocated 1.9 billion pesos (\$4.72 million) for RTD subsidies, of which only 836 million pesos (\$.2.07 million) was actually given away in the form of RTD subsidies (many of the winning bids requested no subsidy). The 1995 RTD program benefited 1257 projects in rural areas, where approximately 400 000 people live.

In 1996, SUBTEL allocated 3.9 billion pesos (\$9.7 million) for RTD subsidies. Final data on the results of the 1996 RTD bidding process is pending; however, it is expected that many of the winning bids will require no subsidy and therefore not all RTD funds will be used. Preliminary data indicates that the 1996 RTD program will benefit 2 463 projects in rural areas, where approximately 700 000 people live. SUBTEL estimates that in 1997 it will allocate 4.8 billion pesos (\$11.9 million) in RTD funds.

Since 1995, the winners of the RTD bids have been CTC, the dominant local carrier, and Chilesat, one of the largest long distance carriers. In 1995, CTC won the bids to serve 775 locations and Chilesat won the bids to serve 482 locations. In 1996, CTC won the bids to serve 696 locations, while Chilesat won the bids to serve 1,149 locations.

### **II.2.1.7 Peru's Fund for Investment in Telecommunications**

NOTE – *A Survey of Universal Service: Traditional and Innovative Approaches*, R. Stephens, FCC International Bureau, September, 1997.

*Overview:* Peru has fostered universal service by using both innovative and traditional approaches. Peru imposed build-out obligations on the privatized telephone company and implemented a tariff rebalancing scheme that gradually phases out all cross-subsidies by 1999. Wall Street analysts describe Peru's tariff rebalancing program as being among the best in the Americas. OSIPTEL, the Peruvian regulator, requires that Telefónica of Peru, the monopoly provider of telephone services until 1999, install 1 million new lines, 19 000 public pay phones (1 public payphone for each 500 people), and connect 1 486 population centers with more than 500 people to the public switched network.

Peru's 1993 Telecommunications Law established the Fund for Investment in Telecommunications (FITEL) as Peru's innovative approach to universal service. FITEL, which is administered by OSIPTEL, fosters universal service in over 70 000 population centers not serviced by Telefónica of Peru. OSIPTEL estimates that more than 6.2 million people live in areas not served by Telefónica of Peru.

*Objective:* FITEL is aimed at improving universal service in rural areas and "places of preferential social interest", which are defined by OSIPTEL and also include select urban areas that are deemed priority areas (for example, urban areas with health centers, etc). The general goals of FITEL are to:

- 1) attract additional private investment;
- 2) attract strategic investors that will compete with Telefónica of Peru after 1999;
- 3) channel FITEL funds to those who will make the best use of the funds; and
- 4) foster economic development and lessen poverty.

*Source of Universal Service Funds:* FITEL funds come from a 1 percent tax on the gross revenues of all telecommunications companies.

*Allocation of Universal Service Funds:* OSIPTEL has stated that it will allocate FITEL funds through a competitive bidding process similar to Chile's. OSIPTEL is currently designing how this process will work and how to select projects. Initially, funds are expected to be used to provide telephone service and low-speed data services (including Internet access). FITEL is expected to eventually enable companies to provide access to more advanced value-added services, such as telemedicine and tele-education programs.



*Statistics & Results:* The FTEL tax raised \$24.3 million between 1994-1996. OSIPTTEL estimates the FTEL tax will raise a total of \$237.8 million over a 15-year period, including \$42.6 million during 1997-1999, increasing to \$59.2 million by 2006-2008.

OSIPTTEL has not yet allocated FTEL funds. OSIPTTEL is in the process of designing the rules for allocating FTEL funds through competitive bidding. OSIPTTEL hopes foreign companies will bid on the FTEL funds.

See also paragraph II.3, Public Development Aid.

## **II.2.2 Development Funds for Special Areas**

### **II.2.2.1 Regional and Rural Development**

#### **United States**

The Rural Utilities Service (RUS) is a credit agency of the U.S. Department of Agriculture (USDA) which assists rural telephone (and electric) utilities to obtain financing. The USDA is the only Federal department with a primary focus on rural America. The RUS advanced telecommunications programs help ensure that rural America has an "on-ramp" to the Information Superhighway.

Financing through RUS may include Rural Electrification Administration (REA) loans or REA guarantees of loans made by others. The telecommunications program borrowers serve over 15 million rural Americans in 46 states. RUS directs a \$6 billion loan portfolio supporting rural information infrastructure. The telecommunications program stimulates tremendous investment in rural infrastructure. On average, for every dollar borrowed from the RUS and invested in telecommunications plant, borrowers also invested \$4.50 of their own funds. In FY 1994, a subsidy of \$12.2 million generated \$527.9 million in Federal loans which leveraged an additional \$2.27 billion. Rural Utilities Telecommunications borrowers generally serve residents living in the neediest counties in rural America. RUS borrowers serve 884 of the 1 042 counties in the United States which suffer from persistent poverty and out-migration.

Through its State Telecommunications Modernization Plan policy, as a condition of receiving loan funds, RUS borrowers are required to ensure that they are building telecommunications plant which is capable of providing advanced telecommunications services to rural America.

Internationally, REA members have traveled to various countries of the world to provide developing countries technical assistance. REA also participates in the following international cooperation activities: design review, economic feasibility analysis, technical design standards, technical equipment specifications, tariff analysis, and management guidance.

NOTE – *U.S. Government, Private Sector, Non-Profit, and Academic Contributions to Communications Development*, Information Infrastructure Task Force, USA, July 1994, page 22.

- USAID initiated the Philippines-Rural Infrastructure Fund to upgrade and expand rural transportation, electrification and telecommunications infrastructure in the Philippines. The project provides finances to various subprojects which are to be implemented by agencies of the Philippine Government. The project will provide support for assessment of the Philippine telecommunications sector to identify policy constraints and inter-regional systems deficiencies, and it will help the Philippine Government complete its study of organization/investment options and feasibility analysis for inter-island communications, including telephones.

The National Telephone Cooperative Association (NTCA) represents 500 small and rural telephone cooperatives and commercial companies in the USA. It is a non-profit organization that provides member education and legal and industry representation for the rural cooperatives that grew in response to the neglect of the main service providers.

While the REA provided loans for the rural telephone cooperatives in the United States, two financial organizations were formed to supplement the REA funds:

- i) RTFC, the Rural Telephone Financing Cooperative,
- ii) Co-Bank, a bank for cooperatives.

The RTFC has provided funding for 180 telephone systems in the United States.

Internationally, the NTCA, with the help of USAID, is sharing with Poland the experience of the development of rural American telecommunications. With the partnership of Polish foundations, the NTCA is guiding the formation of cooperatives in Polish villages. In turn, rural cooperatives use their membership fees to bring the service provider, the TPSA, out to their villages.

See also paragraph II.3.2, Preferential Loans (OPIC).

### II.2.2.2 Social Development Policy

#### United States

- The African Regional Improved Rural Technology project is a USAID undertaking to provide a reliable and economical communications system to rural centers in Zaire that have no two-way radios or lack regular communications because of power supply problems. This project will support the installation of solid-state transceivers powered by photovoltaic panels to:
  - i) enable efficient two-way communications between rural centers to provide basic services such as health and education, and
  - ii) provide a reliable and economical source of energy to reduce dependence on generators.
- Strengthening Democratic Institutions is a USAID project that includes grassroots media campaigns to improve civic education, funding to provide Nicaragua's National Assembly with an electronic voting system and training to transform the state-owned Radio Nicaragua into a contemporary public radio station.
- The International Development Exchange (IDEX) builds partnerships to overcome poverty and social injustice. IDEX identifies small-scale grassroots development projects in Asia, Africa and Latin America and links them with supportive U.S. partners, while educating North Americans about the challenges and successes of marginalized people around the world.

## II.3 Public Development Aid

#### United States

One form of public development aid is industrial development bonds (IDBs). IDBs promote economic development, create employment, facilitate job retention, and broaden the tax base for issuing locales. State and local industrial and economic development authorities can provide information on these instruments.

NOTE – *Capital Formation and Investment in Minority Business Enterprises in the Telecommunications Industries*, Staff Paper, National Telecommunications and Information Administration, Office of Policy Analysis and Development, Minority Telecommunications Development Program (Washington, D.C., April 1995), page 49.

IDBs offer long-term, low-cost, fixed-rate debt financing. These bonds are priced less than a percentage point above comparable U.S. Treasury bonds, about 3 percentage points below taxable corporate bonds, and are backed by the implied credit and due diligence of the issuing municipality. They can be taxable or tax-exempt, depending on municipal regulations regarding the application of proceeds. Although technically long-term debt, favorable IDB terms simulate equity without the return, ownership and control requirements. The bonds, issued in amounts of \$100,000 to \$10,000,000 and above, are purchased and traded by banks, pension funds, insurance companies, foreign investors and others attracted to their yields and liquidity.

From 1987 to 1992, IDBs were estimated to have created 182 000 jobs, facilitated the retention of 169 000 more, and financed roughly 3 800 projects (see Note 1). In 1992, tax-exempt municipal bonds totaled \$235 billion in 8 500 municipalities, 6 000 of which qualified as small issuers of \$10 million or less (see Note 2).

NOTE 1 – *Capital Formation and Investment in Minority Business Enterprises in the Telecommunications Industries*, Staff Paper, National Telecommunications and Information Administration, Office of Policy Analysis and Development, Minority Telecommunications Development Program (Washington, D.C., April 1995), page 49, *citing* Testimony of William J. Coyne to the House Committee on Public Works and Transportation, Subcommittee on Economic Development (June 30, 1994).

NOTE 2 – *Capital Formation and Investment in Minority Business Enterprises in the Telecommunications Industries*, Staff Paper, National Telecommunications and Information Administration, Office of Policy Analysis and Development, Minority Telecommunications Development Program (Washington, D.C., April 1995), page 49.

IDBs have been used by airlines, packaged goods companies, food franchises and retailers, among others, primarily to finance the construction of fixed assets sold or leased to the target company for the cost of the bond and its retirement. IDBs facilitate access to financing for firms that might not otherwise be able to invest in capital infrastructure. As a financing strategy, they appear particularly useful to expanding enterprises in moderate to large-scale, capital-intensive industry segments located in urban or rural distressed areas.

NOTE – *Capital Formation and Investment in Minority Business Enterprises in the Telecommunications Industries*, Staff Paper, National Telecommunications and Information Administration, Office of Policy Analysis and Development, Minority Telecommunications Development Program (Washington, D.C., April 1995), page 49.

See also paragraph II.3.4 – International Bank of Reconstruction and Development (IBRD) and the International Development Association (IDA).

### **II.3.1 Public Aid and Donations**

The United States Telecommunications Training Institute (USTTI) is a joint venture between the U.S. telecommunications industry and the U.S. Government to encourage communications and technological advances by providing a comprehensive array of free telecommunications and broadcast training courses for qualified people from developing countries. Resources for the Institute are provided by both the private and public sectors. In 1993, the sponsors contributed approximately \$4.5 million.

See also *InfoDev*, paragraph II.5.3.

### **II.3.2 Preferential Loans**

#### **United States**

The Overseas Private Investment Corporation (OPIC) is required by statute to give preferential treatment to investments involving small U.S. businesses. Small businesses are defined as industrial companies with annual sales of less than \$166,000,000, and non-industrial businesses with stockholders' equity of less than \$56,000,000.

OPIC's mission is to mobilize and facilitate participation of U.S. private capital and skills for economic and social development of developing countries. Currently, OPIC programs are available in over 140 countries and areas worldwide.

OPIC financing is available for small and large projects through direct loans and loan guaranties. For projects sponsored by U.S. small businesses or cooperatives, financing may be provided through direct loans. These loans usually range from \$2 million to \$10 million. Loan guaranties, which are typically used for larger projects, range from \$10 million to \$75 million.

OPIC's insurance program provides political risk insurance tailored to protect investment against losses due to inconvertibility of currency, expropriation, and political violence. The terms are up to 20 years; rates are determined on a per-project basis.

OPIC's 1994 projects supported total investment of \$11.3 billion in 48 countries, including nearly 30 projects facilitating \$2.1 billion of investment in the Newly Independent States of the former Soviet Union. Additionally, three small rural U.S. telephone companies entered into a joint venture with a consortium of 31 Hungarian municipalities, winning a concession to build a local telephone system. The companies – Consolidated Companies, Denver and Ephrata Telephone and Telegraph, and Hun Tel Systems – entered the venture with support of a \$30 million OPIC loan.

Since its inception in 1971, OPIC has funded itself from its own operations. In 1992, OPIC was required to receive a direct appropriation from Congress because of the Federal Credit Reform Act. OPIC has annually repaid these appropriations to the U.S. Treasury out of its own income and revenues. Starting in 1995, OPIC returned to funding itself from its own operations and did not receive a direct appropriation.

See also paragraph II.3.4, International Development Association (IDA) [interest free loans for countries with annual per capita income of \$905 or less (1995)].

### **II.3.3 Bilateral Aid**

#### **United States**

The U.S. Government has committed substantial financial resources to international communications development in the form of export credit and guarantees, loans and investment guarantees, grants, training, technical assistance and feasibility studies.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), page 14.

USAID is the principal U.S. agency for bilateral assistance to developing nations. Its overarching objective is to promote sustainable development in developing countries. To achieve this end, USAID maintains four strategic objectives: protecting the environment; building democracy; stabilizing world population growth and protecting human health; and encouraging broad-based economic growth (see Note). To a limited degree, the agency has fostered telecommunications capacity building in developing nations. It has also employed development communications applications as a means of promoting its strategic objectives.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), page 15.

USAID has longstanding in-country presence. It is already playing a key role in certain countries. For example, in the Philippines, USAID is working with the Ex-Im Bank to create a Concessional Financing Facility (CFF) to finance U.S. goods and services for telecommunications infrastructure. In Africa, USAID is working with the U.S. National Telecommunications and Information Agency (NTIA) in implementing the “Regional Telecommunications Restructuring Project”. For FY 1993, the Agency’s activity and special interest coding system identified 11 projects with obligations totalling approximately US\$34 million in support of telecommunications modalities and networks, although the level of funding for USAID-supported telecommunications activities is much higher than indicated by the Agency’s electronic budget coding system.

#### **Canada and Japan**

Both Canada and Japan have also played important roles in funding telecommunications projects. These projects provide investment opportunities for Canadian and Japanese firms. In addition to funding infrastructure, both Canada, through the International Development Research Center (IDRC), and Japan, through the Japan International Cooperation Agency (JICA) have also supported training. JICA and the ITU have assisted in setting up telecommunications training centers around the world.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), page 9.

### **II.3.4 Multilateral Aid**

The World Bank is the largest source of multilateral financing for telecommunications. It has recently changed its focus in this sector and now emphasizes policy reform and private sector participation. Between 1951 and 1992, the World Bank lent approximately US \$5.6 billion for 128 telecommunications projects. In addition, it has disbursed about US \$1.6 billion in loans for public enterprise reform projects which include a telecommunications component.

Telecommunications projects account for about 2% of World Bank lending. In general, the Bank provides funding for telecommunications only when lending from other sources is not available on reasonable terms. Bank loans and credits usually finance 15 to 50% of the total project cost, currently averaging about 20%.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), page 9.

Since the 1980s, a shift has taken place in World Bank lending for telecommunications development. Prior to this period, lending focused on: program design (least-cost) and implementation; efficiency of procurement; financial and managerial autonomy of telecommunications agency (including separation of posts and telecommunications). The new agenda has emphasized: sector structure and regulation; promotion of competition; private sector participation; restructuring and/or privatization of the main telecommunications agency.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), pages 9 and 10.

The World Bank Group consists of five organizations that are aimed at assisting the economic development of individual countries. A description follows:

1) **The International Bank of Reconstruction and Development (IBRD).** The IBRD was founded in 1944 and is the primary lending organization of the World Bank Group. It is owned by its 179 Member countries. Each of these countries has voting power in the institution. Voting power is based on a country's shareholding, which, in turn, is based on a country's economic strength.

The IBRD lends to developing countries with relatively high per capita incomes. Loans are targeted at development projects and for structural economic improvement. Most of the IBRD's money is raised on the world's financial markets. It sells bonds and other debt securities to pension funds, insurance companies, corporations, other banks, and individuals around the world. Loans mature in 15 to 20 years, with a grace period of roughly five years. Interest on IBRD loans as of January 1, 1996, was 6.98%. The rate is changed every six months. In the last five years, the IBRD has approved loans on the average of \$15.6 billion a year. In FY 1995, the IBRD lent \$16.852 billion for a total of 134 projects.

2) **The International Development Association (IDA).** The IDA was founded to provide concessional assistance to the poorest developing countries – those that cannot afford to borrow from the IBRD. IDA loans, known as credits, are provided to countries with annual per capita income of \$905 or less (1995). Seventy-nine countries, mostly in sub-Saharan Africa and Asia, are eligible to borrow from IDA.

IDA loans are interest-free (but carry a small service charge) with terms of 35-40 years with a 10-year grace period. IDA's main source of funds are contributions by member governments, along with IBRD profits and repayments on earlier IDA credits. In FY 1996, \$6.9 billion in new lending was approved compared to \$5.7 billion in FY 1995. In FY 1996, \$5.9 billion was disbursed, compared with \$5.7 billion in FY 1995.

3) **The International Finance Corporation (IFC).** Established in 1956 and owned by 168 Member countries, the goal of the IFC is to strengthen the private sector in developing countries. The IFC lends directly to the private sector, while IBRD and IDA lend to governments. The IFC provides long-term loans, equity investments, guarantees, and "stand-by" financing, risk management, and "quasi-equity instruments" to the private sector.

Loans mature in 3 to 13 years, with grace periods as long as eight years. About 80% of the IFC's funds are borrowed on the international financial markets through public bond issues or private placements; 20% is borrowed from the IBRD. The IFC approves approximately \$4 billion in financing each year. This includes syndications and underwriting for private sector projects in developing countries.

4) **The Multi-lateral Investment Guarantee Agency (MIGA).** MIGA helps developing countries to attract foreign investment by providing investors with guarantees against "non-commercial risk" (expropriation). MIGA insures up to 90% of an investment, limited to \$50.0 million per project. In 1994, MIGA anticipated approving 35 guarantee contracts worth about \$400.0 million. (*For more complete information, see also paragraph II.8, Investment Guarantee Mechanism.*)

5) **The International Centre for the Settlement of Investment Disputes (ICSID)**. ICSID was founded in 1966 to promote increased flows of international investments by providing facilities for conciliation and arbitration of disputes between government and foreign investors. As of February 1966, ICSID had 125 member countries. In FY 1995, ICSID had five cases in arbitration, with two new requests registered. ICSID also provides advice, carries out research, and produces publications in the area of foreign investment law. Its publications include multi-volume collections of investment laws and treaties, and a semi-annual law journal.

Other multilateral banks that have funded telecommunications include the Inter-American, Asian, and African Development Banks. Together with the World Bank, these organizations accounted for about five percent of telecommunications funds invested in developing countries in the 1980s.

NOTE – John Coakley, Kathleen Horkan, Jeff Bland, *Telecommunications in Sustainable Development: A USAID Backgrounder*, U.S. Agency for International Development, Center for Development Information and Evaluation, Doc. No. PN-ABU-376 (April 1995), page 9.

## II.4 Debt Conversion

Debt conversion refers to converting loans into marketable instruments. More specifically, to exchange sovereign debt for other obligations in the form of securities. Debt conversion is usually accomplished in the context of the country's prolonged restructuring negotiations with its creditor banks and therefore involves consent and participation of both sides. Each bank agrees individually with the country concerned to exchange all or part of the sovereign debt of the country which it holds for one or more marketable instruments with different characteristics. Hence, such sovereign debt ceases to exist in consideration for a new type of obligation arising.

NOTE – *New Instruments in Sovereign Debt and Voluntary Market Transactions*, Keith Clark, American Bar Association, Section of International Law and Practice, Annual Meeting (Atlanta, Georgia, USA, 1991), page 1.

The conversion of existing debt into tradeable securities was perceived as an appropriate method to restore normal financial relationships between sovereign debtors and the international financial community, both from the point of view of the creditor banks, who would be in a better position to manage and dispose of those assets and therefore resume normal relations with the sovereign borrower, and from the point of view of the debtors, who could utilize it as a vehicle for debt relief, i.e. the reduction of both debt stocks and debt servicing costs.

NOTE – *New Instruments in Sovereign Debt and Voluntary Market Transactions*, Keith Clark, American Bar Association, Section of International Law and Practice, Annual Meeting (Atlanta, Georgia, USA, 1991), page 6.

Throughout a larger part of the debt crisis which has been burdening certain countries and their creditors since the beginning of the 1980s, there has been a fairly active secondary market for sovereign debt. It was formed initially by those banks with exposure to problematic sovereign debt and heavily involved in the restructuring process with various countries. In those initial stages of the secondary market, the bulk of the transactions being made were debt for debt swaps, whereby banks exchanged all or part of their existing exposure to a particular country for other sovereign debt of comparable standing. These swaps were usually undertaken, depending on the sovereign debt management policies of the relevant bank, for different purposes. A bank may wish to reduce or eliminate its exposure to certain debtors, e.g. in order to meet balance sheet and regulatory constraints, notably capital adequacy rules, or to extricate itself from the restructuring process affecting such exposure, and increase its exposure to other sovereigns with whom it prefers to deal; or it may simply wish to spread its sovereign risk.

NOTE – *New Instruments in Sovereign Debt and Voluntary Market Transactions*, Keith Clark, American Bar Association, Section of International Law and Practice, Annual Meeting (Atlanta, Georgia, USA, 1991), pages 2 and 3.

The secondary market has actively encouraged the use of securities as an increasingly important tool for sovereign debt management in order to facilitate transactions and make trading more efficient. Notwithstanding the secondary market's important role, had sovereign debtors as well as the governments of certain developed countries not become interested and involved in the use of marketable instruments to manage their debt, the conversion of sovereign debt into securities would not have taken place. Thus, without the consent and participation of the debtor in question, the exchange of a bank's rights to certain principal and interest payments under a restructuring agreement for an entirely different obligation in the form of a security, would have been legally and commercially impossible.

NOTE – *New Instruments in Sovereign Debt and Voluntary Market Transactions*, Keith Clark, American Bar Association, Section of International Law and Practice, Annual Meeting (Atlanta, Georgia, USA, 1991), pages 3 and 4.

### II.4.1 The Logic Of Debt Conversion Financing

NOTE – U.S. Government contribution to ITU-D African Regional Development Conference, Abidjan, Côte d'Ivoire, May 1996, Appendix C.

The economic rationale for debt conversions to finance investment in debtor countries is based on the ability to purchase the financial obligations of a developing country from a creditor at a discount. An investor purchases the debt and, by prior agreement with the debtor government, cancels the debt in exchange for receiving local currency, bonds, shares in a local company or another form of agreed payment. Depending on the country, debt conversions can generate between 5% and 200% more local currency for the investor's project than a conventional foreign exchange transaction.

Debt conversion transactions are appealing because all parties involved in the transaction can benefit:

- a) **The investor** obtains local currency or assets at a favorable discount because the debt is purchased at a significant discount in the secondary market and redeemed by the debtor country at a value higher than its purchase price. This financial gain allows the investor to leverage the resources available for the investment.
- b) **The debtor country** retires debt at a discount in local currency and simultaneously attracts new investment in priority sectors of its economy. The country's debt levels are reduced, thereby enhancing its ability to service its remaining debt.
- c) **The commercial bank** receives immediate partial repayment on its outstanding loans at a price it believes is equal to its market value. The reduction in the debtor country's external debt improves its ability to service its remaining debt and enhances its ability to eventually return to the credit markets.

### II.4.2 Necessary Preconditions

To execute a debt conversion transaction, several preconditions should exist:

- a) The country's external debt should be available at a discount from its face value.
- b) Under the prevailing loan agreements and applicable laws and regulations, the debt must be eligible for conversion.
- c) The debtor government must be willing to convert the debt. Some countries only approve debt conversions on a case-by-case basis, while others have formalized programs that establish debt conversion terms and conditions.
- d) The investor must propose an investment project that meets the debtor country's development and debt reduction criteria.

### II.4.3 Steps in Conducting Debt Conversion Transactions

#### *Step #1: Design and Funding of the Investment Project*

The investor decides to invest in a new or existing corporation or project in a developing country and obtains the required funding to effect the investment. The investor determines how the funds resulting from the conversion will be utilized and prepares a preliminary budget identifying the amounts to be spent in each expense category. In addition, the investor obtains all government and other required approvals to effect the investment.

#### *Step #2: Feasibility Analysis and Design of the Transaction Structure*

Before proceeding with a potential debt conversion transaction, the investor should determine whether in principle it is feasible to structure the transaction in a way that adequately addresses the investor's funding and project cash flow requirements and provides the investor with a sufficient gain without incurring unacceptable risks. The factors that will be considered in determining the feasibility and structure of the transaction will include, but not be limited to:

- The type of debt conversion proceeds that will be paid to the investor (cash, shares, bonds, real property, commodities, tax credits or exonerations, or other forms of consideration).
- The foreign exchange rate applied to the debt conversion;

- The debt purchase price and debt redemption rate.
- The availability of sufficient amounts of eligible debt.
- The expected time required to close the debt conversion transaction and whether the transaction can be effected in tranches.
- The feasibility of protecting the debt conversion proceeds from the adverse impact of inflation and foreign exchange devaluation.
- The debtor government's performance and payment risk.

#### *Step #3: Application for Government Approval*

The debtor government generally requires that the investor and/or the investor's local counterpart submit for review and approval an application for authorization to convert debt. The Ministry of Finance and/or the Central Bank usually manages the application review process.

The application normally includes a detailed description of the investment project, proposed conversion terms and conditions, copies of the investing company's certificate of incorporation, copies of the debtor government's authorizations for the investment, detailed budget and cash flow projections for the local company and a description of the benefits in the host country that will result from the investment.

It is important to note that submitting a debt conversion application and receiving authorization to effect the transaction does not obligate the investor to proceed with the transaction.

#### *Step #4: Executing The Debt Conversion Transaction*

Once the investor has received written approval from the government specifying the type of debt eligible for conversion, the transaction(s) can be completed. The investor will then purchase the debt directly from creditors or from the secondary market pursuant to debt purchase and assignment agreements and assign the debt to the debtor government in exchange for the government paying the investor the agreed debt conversion proceeds.

#### *Step #5: Managing the Conversion Proceeds*

To ensure that conversion proceeds are used for the authorized purposes, the debtor government normally requires the investor to prepare and submit reports on the use of the conversion proceeds. If the investor received local secondary market to obtain funds for the project, upon receiving the debt conversion proceeds, it is important that the investor undertake appropriate measures to protect the proceeds from the adverse effects of inflation and currency devaluation.

### **II.4.4 Costs and Risks of Debt Conversion Transactions**

In addition to the cost of purchasing eligible debt, transaction costs normally consist of:

- i) fees paid for legal and technical assistance;
- ii) financial advisory fees; and
- iii) debt conversion fees levied by the debtor government.

In the aggregate, these fees should not significantly affect the transaction gain.

The primary risks for the investor in effecting debt conversions are the performance and payment risk of the debtor government and the risk that the debt conversion proceeds will be adversely affected by inflation and foreign exchange devaluation. Transactions can normally be structured to adequately address these risks by purchasing and converting debt in tranches and by using escrow agents. However, if this is not possible, the investor is best advised not to pursue the debt conversion transaction.

### **II.4.5 Sample Transaction**

A US investor decides to capitalize a local company to implement a project in Country X. The investor estimates that, under a normal foreign currency exchange transaction, the project would require an investment of US \$41,000,000. The current price of Country X's debt on the secondary market is \$0.40 per \$1.00 of face value. The investor spends \$500,000 to purchase debt eligible for conversion with a face value of US \$1,250,000. The investor presents the eligible debt to the Central Bank which has authorized the conversion of the debt into local currency at 80% of face value or the local currency equivalent of \$1,000,000.



The Central Bank pays the local currency equivalent of 80% of face value into an escrow account with a local escrow bank in the name of the local company and a proportionate number of shares are issued against these funds. The investor simultaneously transfers title to the debt to the escrow bank in favor of the government. The escrow bank, after verifying the amounts and execution of title, releases the local currency to the company and the debt is transferred to the government.

If, in this example, the investor is required to spend \$60,000 on transaction costs and taxes, its total cost of acquiring local currency equivalent of US \$1,000,000 is \$560,000. The investor therefore leverages its investment funds through debt conversion by generating an approximate gain of 79% over a conventional foreign exchange transaction.

## **II.5 (National) Policies and strategies of other players**

### **United States**

#### **USAID Policy Determination 22**

Policy Determination 22 describes the principles for USAID funding telecommunication and information applications and technologies to promote sustainable development. Among other things, the goal of these guidelines is to ensure that the uses of bilateral assistance funds are consistent with USAID's sustainable development objectives, and U.S. Government policies supporting economic growth, promoting trade, and accessing the Global Information Infrastructure (GII) (see Note). There is general consensus that GII activities should be based on five principles:

- 1) encourage private investment;
- 2) promote competition;
- 3) create a flexible regulatory framework;
- 4) provide open access; and
- 5) ensure universal access.

NOTE – The GII, in general, includes the components to gather, transmit, access, and disseminate information over a global system of networks. USAID Policy Determination 22, page 1.

The following principles describe some of the main principles that guide USAID's activities in using telecommunications as a tool to achieve sustainable development:

First, USAID's focus is to use the GII to build and strengthen the enabling environment (laws, regulations, and other rules), broaden access and participation, and encourage institutions to adapt to economic and social changes.

NOTE – The GII, in general, includes the components to gather, transmit, access, and disseminate information over a global system of networks. USAID Policy Determination 22, page 2.

USAID takes the position that users and stakeholders should be involved in planning, regulating, operating, and financing the activity. USAID will invest in the development of the GII so long as it is tailored to specific country needs.

NOTE – The GII, in general, includes the components to gather, transmit, access, and disseminate information over a global system of networks. USAID Policy Determination 22, pages 2-3.

USAID will not provide grants or credit for activities which circumvent competitive markets, create trade distortions, or crowd out private sector financing (see Note).

USAID will design the financial terms of capital projects with a telecommunications component in accordance with the OECD "Arrangement on Guidelines for Officially Supported Export Credits" (E215.1.4) (see Note).

USAID will require that all telecommunications equipment and services be of U.S. source, origin, and nationality, unless a waiver is executed (E215.1.5) (see Note).

While USAID will provide funding for developmentally sound telecommunications market assessments and physical infrastructure projects on occasion, the primary program emphasis will be the other dimensions of the GII (E215.1.3) (see Note).

NOTE – The GII, in general, includes the components to gather, transmit, access, and disseminate information over a global system of networks. USAID Policy Determination 22, page 3.

See also paragraph II.2.2, Development Funds for Special Areas: Telecommunications Development Funds in the United States, Chile, Peru.

### II.5.1 Venture Capital Companies

Venture capital is the main source of equity invested in rapidly growing companies with high growth potential. The venture capitalists that invest in start-ups are funded by private and public pension funds, endowment funds, foundations, corporations, wealthy individuals, foreign investors and venture capitalists themselves. For 50 years, venture capitalists have fuelled the growth of America's high tech industries such as biotechnology and overnight shipping. Some of America's most successful companies were backed by venture funding: Intel, DEC, Apple, Microsoft, Sun Microsystems, FedEx, Genentech and Netscape.

NOTE – *Inside Venture Capital*, VentureOne Corporation, 1997.

A Price Waterhouse National Venture Capital Survey says that venture capital activity across the United States hit a record-setting \$3.18 billion in the second quarter of 1997, eclipsing the previous mark of \$2.8 billion invested in the second quarter of 1996. The number of companies receiving venture capital backing also reached a new level with 697 companies receiving funding, a 23% increase from the same period last year. Through the first six months of 1997, venture capital investments exceeded \$5.5 billion, nearly \$500 million ahead of last year, and \$1.88 billion higher than the first half of 1995 – a 52% jump.

Technology companies dominated all investments, seizing 70% of all venture capital funds – \$2.23 billion – and accounting for 71% of all companies receiving venture capital backing. Within the technology sector, software and communications companies again emerged as the favorite venture capital investor target, attracting \$1.6 billion among 346 companies. The number of dollars invested in Internet-related companies tripled in 1998 from the same period the year before. Venture capital investments in Internet-related companies exceeded \$500 million for the first time, with each company receiving an average of \$5 million – a 68% increase from the second quarter of 1996.

NOTE – *Tech Companies still Fuelling Growth*, Aug. 21, 1997, United Press International, San Jose, California.

There is no exact definition of venture capital as it applies to business operations funding. However, such investments have several characteristics, including:

- i) an investment in a start-up or expansion-oriented company, which exhibits a higher level of risk than is associated with traditional bank, credit-based lending activities;
- ii) the actual or potential equity participation in the business by the venture capitalist through direct purchase of common stock, or through the convertible nature of other investment instruments;
- iii) a long-term investment with a 5 to 10 year time-horizon and an established mechanism to “exit” or payout the venture capitalist at the end of that time period; and
- iv) a minority investment, typically involving a 20% to 40% equity interest in the company.

NOTE – *BC Health Industries Network*, January, 1997.

### II.5.2 Commercial Banks

A bank loan can help fuel growth in the short run. However, the borrower will have to repay the principal along with interest. Also, banks limit the amount of money they are willing to lend according to the ability of the company to repay, so a company will be constrained accordingly.

### II.5.3 Development Banks

#### – *Asian Development Bank*

The ADB is a multilateral development finance institution whose capital stock is owned by 56 member countries. ADB's goal is to promote the economic and social progress of its developing member countries (DMCs) in the Asian and Pacific region. The ADB: (1) makes loans and equity investments for the economic and social advancement of DMCs; (2) provides technical assistance for development projects; (3) promotes investment of public and private capital for developing purposes; and (4) assists in coordinating development plans of developing member countries. The Bank has supported telecommunications development in DMCs since 1971. It has extended loans and grants totalling over \$1.2 billion for 22 loan projects and 21 technical assistance projects.

#### – *African Development Bank*

Aside from the World Bank, the African Development Bank (AfDB) is the only major financial institution providing development assistance to African countries. Founded in 1964, the Bank funds projects in more than 50 African countries. Its headquarters is located in Abidjan, Côte d'Ivoire. In 1992, the Bank approved nearly 1.8 billion in loans for development projects in Africa. The AfDB's operational program has four main priorities: elimination of poverty; reconstruction and rehabilitation; development of the private sector; and increasing trade and economic integration.

#### – *InfoDev (World Bank)*

The Information for Development Program – *InfoDev* – is a global program established by the World Bank in 1995 that shares worldwide experience with and disseminates best practices to governments and key decision makers, both public and private, on the economic development potential of communications and information systems. As a multilateral organization with a cross-sectoral approach to development issues that has relationships with both developed and emerging economies, the World Bank plays the role of intermediary between all *InfoDev* parties.

*InfoDev* channels policy advice and other technical assistance to governments in emerging economies on privatization, private entry and competition, and on improving the policy, regulatory, and business environment for investors in communications and information systems. *InfoDev* conducts feasibility and pre-investment studies and prepares experimental applications in communications and information systems.

*InfoDev* has access to funding resources provided by the World Bank Group, other public organizations, and private sources including enterprises and non-profit foundations. The World Bank administers *InfoDev*'s financial resources. Donors receive quarterly updates on program disbursements and activities in progress. A report on *InfoDev* activities and financial statements is prepared annually by *InfoDev* management reviewed by external auditors and circulated to donors and others.

#### – *The Inter-American Development Bank*

This entity makes loans to Latin American and Caribbean countries for development.

### II.5.4 National organizations in charge of state aid

#### – *Caisse française de développement*

### II.5.5 International, intergovernmental and regional organizations

## II.6 Factors Favouring Investment

### II.6.1 Licensing conditions

One significant advantage to sound licensing policies is the degree of security and order they provide to a given service market. Reasonable conditions that are clearly enunciated to the public afford operators, competitors, investors and end users with a measure of stability and predictability of process. This should enhance chances for obtaining financing because it addresses, to some degree, the question of risk. Requirements and qualifications are widely known, there is a reasonable expectation of license renewal by the operator, and the licensing process typically operates in the context of an organized regulatory regime.

The licensing authority may be with the sector Minister, with the regulator, or divided between them. In the former case, licensing is considered to be the exclusive right of the Minister and a matter of public policy. In the latter case (with a division of the licensing authority), government policy may determine whether there should be some degree of liberalization and in which markets, while the regulator will determine the number of entrants and the related terms and conditions. Another option is to grant the Minister the authority to give either general or specific directions to the regulator on licensing matters. A third option is to segment the licensing process by differentiating the approval procedures based on the type of license to be granted. Under this option, licenses for value-added service providers could be granted by the regulator pursuant to a government policy objective to liberalize that particular market segment.

NOTE – Handbook on Sector Reform, *Guidelines on Regulation*, United Nations Development Programme, ITU, Bangkok (August 1995), page 50.

The process to select a service provider could involve the following steps:

- 1) public announcement that the regulatory body is going to initiate a process to select a licensee to provide a given telecommunications service;
- 2) all interested parties would have a reasonable period of time within which to apply for the license, or make suggestions or inquiries;
- 3) the regulatory body, applying appropriate selection methods, will announce its decision of who will be granted licenses;
- 4) any interested party that considers the decision unjust would have the right to appeal the decision directly to the regulatory body or to a higher body. A judicial remedy would also be available.

NOTE – *Telecommunication Policies for the Americas* (“The Blue Book”), ITU Telecommunication Development Bureau (BDT) (March 1996), page 35.

### II.6.2 Dealing with debt

The developing country debt crisis that began in 1982 with Mexico’s default on loan payment obligations caused a number of debtor countries to establish debt-equity conversion programs that, together with debt restructuring and forgiveness programs, were aimed at improving their debt service capability. Creditors strongly supported the debt-equity conversion concept. International financial institutions also endorsed debt-equity conversions subject to their compliance with International Monetary Fund agreements on the money supply and their not adversely affecting the budgets of the debtor countries.

Although debt restructuring documentation allowed debtor countries to establish and operate debt conversion programs, it was not until a relatively active secondary debt market developed in the years following Mexico’s default that investors were actually able to purchase and convert debt into local currency for approved investments. Debt conversion activity during the 1980s was concentrated in Chile, Mexico, the Philippines, Nigeria and South Africa and has since spread to several other countries. The following describes six ways to deal with debt.

### II.6.2.1 Debt Financing

NOTE – U.S. Government contribution to ITU-D African Regional Development Conference, Abidjan, Côte d'Ivoire, May 1996, Appendix C.

Debt financing is an integral component of the majority of telecommunications projects. There are two types of debt financing:

- i) senior debt, usually in the form of bank loans;
- ii) junior debt in the form of subordinated bank loans or debt securities.

Senior debt generally is secured and carries lower interest rates, while junior debt may be secured or unsecured and has higher interest rates. Junior debt offered in private placement helps avoid complicated securities law requirements and can be placed more quickly than public offerings. However, junior debt offered in public offerings carries lower interest rates, has a broader market and has fewer restrictions on its issuer.

Rule 144A and Regulation S are two measures introduced by the United States to facilitate investment in debt securities by foreign issuers in the U.S. markets. Rule 144A eliminates limitations on resale of restricted securities within a secondary market of “qualified institutional buyers”, – institutions which, because of their size and experience, are deemed to be capable of evaluating investment opportunities on their own. Rule 144A also gives foreign issuers the ability to have their securities traded among institutions in the United States without the issuer being required to comply with Exchange Act reporting requirements. Regulation S exempts registration under the U.S. securities laws for transactions that occur wholly outside of the United States. This exemption applies where the securities are sold in an “offshore transaction” with no “directed selling efforts” in the United States. The introduction of Rule 144A and other measures by the United States have resulted in an active foreign securities market among large institutional investors, and foreign issuers.

### II.6.2.2 Project Financing

Project financing is an attractive alternative for the financing of international ventures where the introduction of new services to new markets offers investment opportunities but requires large investments of capital at the outset and carries greater risk and uncertainty than the typical domestic transaction. Project financing is advantageous to the borrower because it limits the need for recourse against the project sponsor. Project financing helps relatively weak project sponsors to use the credit of the project to borrow money on more favorable terms than would otherwise be available. The issues to be considered in project financing include:

- the scope and duration of the concessions/license;
- operating and market risk;
- employment issues;
- currency controls;
- political risk;
- enforceability of the security interest;
- negative pledges (if government is an owner).

### II.6.2.3 Equity Financing

Typically, equity financing of telecommunication projects occurs through a joint venture in which the joint venture partners themselves have or can obtain the funds needed to invest in the project. Project sponsors can raise capital in the host country, or elsewhere by issuing equity securities.

Equity financing requires an investment policy that favors foreign investment. Favorable foreign investment laws, and the ability to repatriate capital and profits are vital. The American Depositary Receipts program, the updating of applicable regulations, and the introduction of Regulation 144A and Regulation S by the United States have helped increase the offering and sale of equity securities in the international capital markets. This mode of financing is particularly attractive in the U.S. because of relaxed investment and repatriation policies, and the U.S. drive to expand its telecommunications markets and investments.

#### **II.6.2.4 Joint Ventures**

Joint ventures as a form of direct foreign investment have gained momentum in the telecommunication industry. Joint ventures give members an opportunity to establish a presence in countries with the prospect of early access to a large market of potential customers. Deregulation, privatization of international telecommunications markets and dramatic technological developments in the last decade have led to an increase in joint venture projects in the telecommunication industry.

The popularity of joint ventures lies in the following factors:

- 1) the ability to have a mix of partners who may satisfy the political, financial, and technical requirements needed to win the bid;
- 2) competition is reduced to 2-5 consortia as opposed to 20-25 companies;
- 3) financial risk is shared between members of the joint ventures; and
- 4) the strength of each partner complements the other.

For telecommunication operating companies, joint ventures are the solution for securing at least a slice of profits in the fiercely competitive global telecommunications market. Due to the massive amount of capital which is often necessary for global acquisitions, joint ventures as strategic offensive tools for telecommunication companies will remain popular through the next decade. Some of the issues to be considered before entering a joint venture are: the objectives of and the competition among the ventures; capitalization; management of the joint venture distribution and other payments; indemnities and risk allocation; and exit provisions.

#### **II.6.2.5 Vendor Credits**

Vendor financing is generally limited to certain categories of capital equipment. The increased demand for equipment has led to a shift in the bargaining power to the vendor. Thus equipment specifications could be subordinated to financing considerations – therefore, credits – whereby national aid is linked to the sale of equipment by vendors of that country. The U.S. does not subscribe to that policy as it exercises control over a nation's use of foreign aid, and limits now and into the future the sourcing options of the recipient country for telecommunications equipment. This is detrimental because of rapid advances in technology and often, declining prices.

#### **II.6.2.6 Sale of Stock**

Selling pieces of ownership (or stock) in the corporation (“going public”) can generate huge amounts of cash that can be used for a variety of purposes, including debt reduction. For example, when Plantronics, Inc., a leading manufacturer of high-tech telephone headsets went public in January 1994, it issued 3 million shares of stock that raised \$37.5 million. Plantronics used most of the proceeds to pay off accumulated debt and a senior note offering. In addition to paying off debt, companies will use the capital to: build new factories, purchase equipment, increase advertising and marketing budgets, hire new workers, or research new products. Proceeds from selling stock to the public, regardless of how used, will help the company grow, create more jobs, generate additional revenue, develop better products, and contribute to general economic expansion. To assist in the process of going public, a company will usually hire an investment banking firm. This specialized banker evaluates the company, helps determine a price for its stock, and serves as an intermediary between the issuer of the securities and the investing public. In the United States, when a corporation's stock is issued for the first time, it is called an initial public offering (IPO) and it is traded on the primary market. Later, when the stock is resold to other investors, it is sold on the secondary market such as the New York Stock Exchange. By going public, the company is transformed from a private (or state-owned) business to a public corporation owned collectively by a large pool of investors, or stockholders.

## II.7 Investment guarantee mechanism

The purpose of investment guarantee agreements (IGA) is to ensure against non-commercial risks such as expropriation and nationalization, and to allow for remittances and repatriation of capital. An IGA normally provides:

- a) a guarantee that there shall be no expropriation or nationalization except for a public purpose and with prompt and adequate compensation; and
- b) permission to remit or repatriate in any convertible currency profits or capital on investment.

Under most IGAs, the beneficiaries would be:

- a) nationals or citizens according to the laws of each contracting party; and
- b) companies which are incorporated in either contracting party, substantially owned by, and whose management and control are vested in the nationals of each contracting party.

NOTE – THB Asia Connect Sdn Bhd (Internet).

The Multilateral Investment Guarantee Agency (MIGA) was established April 12, 1988, as the newest member of the World Bank Group. Its purpose is to encourage the flow of foreign direct investment to developing member countries for economic growth by providing:

- i) guarantees to foreign private investors (i.e. political risk insurance) against the risks of currency transfer, expropriation, and war and civil disturbance in developing countries; and
- ii) technical assistance and advisory services to developing member countries on means to promote private investment opportunities in their economies.

MIGA offers long-term, non-cancellable political risk insurance to eligible investors, including commercial banks, for qualified investments in developing member countries. Specifically, MIGA protects against losses arising from the investor's or lender's inability to convert local currency returns (profits, principal, interest, royalties, capital, and other remittances) into foreign exchange for transfer outside the host country. Currency devaluation is not covered. It protects against partial or total loss due to expropriation by the host government, and war or civil disturbance (including revolution, coups d'état, sabotage or terrorism).

MIGA can insure new investments originating in any member country and destined for any developing member country. This includes investment contributions associated with expansion, modernization or financial restructuring of existing projects and acquisitions that involve privatization of state enterprises.

An eligible MIGA investor is typically a national of a MIGA member country other than the host country in which the investment is to be made. A corporation, commercial bank or other financial investor is also eligible for coverage if it is either incorporated, or has its principal place of business in a member country, or if it is majority-owned by nationals of member countries. While MIGA usually limits its support to private sector investors, state-owned corporations and financial institutions may be eligible if they can demonstrate that they operate on a commercial basis.

MIGA's standard term of coverage is 15 years; it may be increased to 20 years under certain circumstances. In general, premiums are paid in advance, on an annual basis. Exceptions are made for certain loans that require quarterly or semi-annual payments.

MIGA can insure equity investments for:

- i) up to 90% of the investment contribution; and
- ii) up to 450% to cover earnings attributable to the investment.

For loans and loan guarantees, MIGA can insure

- i) up to 90% of the principal; and
- ii) up to 150% of the principal for interest that will accrue over the term of the loan.

For technical assistance contracts and similar agreements, MIGA insures up to 90% of the total value of payments due. The investor or lender is required to remain at risk for at least 10% of any loss under the contract.

## II.8 Access to the stock exchange

### United States

There are seven stock exchanges in the United States – the New York, American, Boston, Cincinnati, Chicago, Pacific and Philadelphia Stock Exchanges. A single stock can be listed and traded on more than one exchange. In addition to the major exchanges, many securities are traded in the over-the-counter market (OTC).

NOTE – Since 1978, the eight markets have been linked together by an electronic communications network called the Intermarket Trading System (ITS). The ITS allows traders to shop by computer at different markets to get the best prices.

The majority of OTC stocks are from companies that do not meet the listing requirements of the major exchanges. These are traded over a vast telecommunications network called NASDAQ, which is operated by the National Association of Securities Dealers (NASD). The NASD is composed of thousands of brokerage firms.

NOTE – See below for a description of the requirements for listing on the NASDAQ.

Stock exchanges are trading centers for the shares of U.S. corporations and of companies around the world. Investment in America's capital markets is open to investors everywhere. Securities trading in the United States is governed principally by two laws passed by Congress along with related rules handed down by regulatory organizations. The most important laws are the Securities Act of 1933, which addresses new listings, and the Securities Exchange Act of 1934, which governs trading of existing securities.

NOTE – *Fundamental Analysis Worldwide*, Volume II, Canada and the United States, Haksu Kim and Jan Marton.

The Securities Act of 1933 requires that investors be fully informed of all material information to ensure fair transactions and to prevent fraud or misrepresentation in new security issuances. It applies to new share issuances for public companies as well as initial public offerings. Issuers must provide a registration statement to the U.S. Securities and Exchange Commission (SEC) before the initial sale of securities, as well as a prospectus describing various aspects of the company's operations. Registered statements become effective following a 20-day waiting period unless the SEC issues a stop order signalling something amiss.

NOTE – *Fundamental Analysis Worldwide*, Volume II, Canada and the United States, Haksu Kim and Jan Marton.

Public companies are obligated by the SEC to compile reports on their quarterly and annual financial results and the stock exchange(s) at which their securities are listed. Companies also compile quarterly and annual financial results containing additional voluntarily provided information for shareholders and investors.

NOTE – *Fundamental Analysis Worldwide*, Volume II, Canada and the United States, Haksu Kim and Jan Marton.

There are no significant barriers to U.S. investors wishing to purchase foreign securities. The shares of some foreign companies are purchased directly by U.S. investors in the company's home country. Should the level of investment made in the foreign company by U.S. investors reach significant levels, the company may be required to file its financial statements with the SEC.

Quarterly financial statements to shareholders are required in the United States. The quarterly data provided by U.S. companies to shareholders are comprehensive and informative to financial analysts (see Note). Besides these filing requirements, listed companies must promptly report any major event through the media. This news is distributed by such outlets as the Dow Jones News Wire, Reuters, Standard & Poor's Market Scope/Daily News, the New York Times, Media General Financial Services, Tribune Media Services, the Associated Press, PR Newswire, Business Wire, and Bloomberg Business News.

NOTE – *Fundamental Analysis Worldwide*, Volume II, Canada and the United States, Haksu Kim and Jan Marton.

Information filed with the SEC may be delivered in an electronic format through a computer system known as EDGAR (Electronic Data Gathering Analysis and Retrieval). Some companies deliver this data through electronic data delivery systems such as the Internet or Bloomberg.

### II.8.1 The NASDAQ Stock Exchange

Companies with net tangible assets of \$4 million must offer ("float") 750 000 public shares (see Note 1), having a market value of \$5 million, at a minimum bid price of \$1. There must be at least 400 shareholders (round lot holders) (see Note 2).

NOTE 1 – Public float is defined as shares that are not held directly or indirectly by any officer or director of the issuer and by any other person who is the beneficial owner of more than 10% of the total shares outstanding.

NOTE 2 – Round lot holders are considered holders of 100 shares or more.



Companies with net tangible assets of \$6 million should have a pretax income of \$1 million, should float a minimum of 1.1 million shares with a market value of \$8 million. The shares should have a minimum bid price of \$5. The issuer should have a minimum of 400 shareholders (round lot holders).

Companies with net tangible assets of \$18 million must offer at least 1.1 million shares, with a market value of \$18 million, at a minimum bid price of \$5. The company should have a 2-year operating history, and should have at least 400 shareholders (round lot holders).

Companies with a market capitalization of \$50 million or total assets *and* total revenue of \$50 million must float at least 1.1 million shares having a market value of at least \$15 million, at a minimum bid price of \$5. There should be at least 400 shareholders (round lot holders).

Companies with market capitalization of \$75 million or total assets of \$75 million *and* total revenue of \$75 million should issue at least 1.1 million shares having a market value of at least \$20 million. Shares should be offered at a minimum bid price of \$5; there should be at least 400 shareholders (round lot holders).

## II.8.2 The New York Stock Exchange

The New York Stock Exchange (NYSE) has a 205-year history (it came into being in 1792). It is distinguished as an auction market, where stocks are bought and sold at prices determined by the bids and offers of investors. The NYSE is a not-for-profit corporation owned by approximately 1 366 members. Members are individuals; the approximately 497 securities firms they represent are called member firms.

The NYSE is the world's leading stock exchange. About 51 million individual investors and 10 000 institutional investors are buyers and sellers of securities issued by more than 2 900 listed companies. Investors trade on the NYSE floor through representatives of the member firms.

NYSE capitalization (worth of all shares) exceeds \$6.8 trillion (1996), equal to about 90% of the U.S.'s gross national product (GNP) – the total yearly value of all goods and services produced by the nation. Virtually every leading U.S. industrial, financial, and service corporation is listed on the exchange. More than 250 international companies are listed on the NYSE, more than any other exchange. On average, more than 400 million shares of stock are traded on the NYSE each day (1996).

In order to be considered for listing on the NYSE, a company must meet specified levels of net earnings, assets and trading volume, and its shares must be widely held by investors. The company must also meet the NYSE's strict investor-protection standards, including issuing an annual report, holding an annual shareholder meeting, and making important financial information about the company readily available to the public.

NOTE – *About the NYSE*, Chapter 1, NYSE, Inc., 1996.

For all companies seeking to list on the NYSE, the initial step is the confidential review of eligibility. This review provides a company with an official position on its listing status and itemizes any conditions that would need to be satisfied in order to list. It is performed at the request of the listing candidate, is without cost, and does not reflect a commitment to list. The review must be completed prior to any announcement in the press, annual report prospectus, etc., of a company's intention to file a formal listing application.

The confidential review of eligibility will normally be completed by the NYSE within two weeks. The listing candidate will receive both a verbal and written communication on eligibility clearance and any conditions of listing. Upon receipt of clearance, the candidate has up to six months to file a formal listing application. If all requirements are met, typically by the eighth or ninth week following the submission of all documentation required for the confidential review of eligibility, the company's shares are admitted to trading.

There are original and continuing annual fees associated with a NYSE listing. Non-U.S. companies will pay a minimum fee of \$100,000, consisting of an original fee of \$36,800 plus a fee based on the number of (million) shares which are offered. The maximum amount of the latter is \$500,000.

## II.8.3 The American Stock Exchange:

Companies listed on the American Stock Exchange must have a pre-tax income of \$750,000 in the latest fiscal year or for two of the most recent three years. The market value of the public offering must be \$3,000,000, the price must be at least \$3, and there must be stockholders equity of at least \$4,000,000.

Companies that do not meet this criteria may nevertheless qualify for listing under certain circumstances. This is due to the recognition that some financially sound companies are unable to meet fully the Exchange's regular listing criteria (for example, because of the nature of their business, or because of continuing large expenditures of funds for research and development). Such companies may qualify for listing provided the market value of the public offering is \$15,000,000, they have a history of operations for 3 years, the price is at least \$3, and there is stockholders equity of at least \$4,000,000. Other alternatives for offerings that do not specify a required market value are also available. These require a minimum number of shareholders, however, for example, 400 to 800, and a minimum number of public shares to be offered.

The exchange has not adopted special criteria for Initial Public Offerings (IPOs), but added emphasis is placed on the company's financial strength and its demonstrated earnings history and/or outlook. In certain circumstances, the Exchange may approve an issue for listing "subject to official notice of issuance" immediately prior to effectiveness of the company's initial public offering.

#### II.8.4 France

All trading of securities in France is centralized at the Bourse in Paris. Regional stock exchanges at Bordeaux, Marseilles, Nantes, Lille, Lyon and Nancy serve as local affiliates for companies that were originally regional. The Bourse trades bonds, ordinary stocks, preference stocks, foreign stocks and loan stocks. Some 4978 securities were listed in France in 1994, representing a total market capitalization of FF 1,122,126 (B) billion. France's *Marché à terme international de France (MATIF)*, created in 1986, is the second largest financial futures market in Europe. The options market, *Marché des options négociables de Paris (MONEP)*, was opened in 1987.

NOTE – *Fundamental Analysis Worldwide*: France, Florence Perillat.

The Bourse is made up of an Official Market (*cote officielle*), a Second Market (*second marché*) and Over-the-Counter trading (*marché hors cote*). Companies seeking admission to the Official Market must provide financial statements for the last three years and make at least 25% of their capital available to the public.

NOTE – *Fundamental Analysis Worldwide*: France, Florence Perillat.

The amount of corporate information made publicly available in France depends on the legal form of the company and on whether the company makes a public offering or simply issues *billets de trésorerie* (financial instruments that provide short- and mid-term liquidity to industrial and commercial companies, traded by *banques de trésorerie*, to improve the efficiency of the financial market through brokering or arbitraging). All publicly traded corporations are required to file annual consolidated financial statements, a management report, and a statutory auditor's report at the Court Registry (*Greffe*) no more than a month after the annual general meeting of shareholders.

As a minimum, corporations registered with the Official Market or the Second Market must publish an abbreviated version of their consolidated financial statements (income statement, balance sheet, and related notes), no more than four months after the fiscal year end and 15 days before the annual meeting, in the *Bulletin des annonces légales obligatoires* (BALO), the French publication for legal notices. Foreign corporations registered with the Official Market or the Second Market must publish their annual reports, partially or completely translated, in the BALO no more than six months after the fiscal year end.

NOTE – *Fundamental Analysis Worldwide*: France, Florence Perillat.

Most companies provide investors and researchers with company reports upon request by letter, phone or fax. The library at the Bourse is open to the public, and anyone may make copies of annual reports. Documents also are available to the public at the Court Registry of the Chambers of Commerce, which provides copies for a nominal fee.

Corporations listed on the Official Market or on the Second Market must publish semi-annual reports in the BALO consisting of consolidated financial statements and, where applicable, a management report and a statutory auditor's report, no more than four months after the end of each semester. Foreign companies registered under the same conditions are required to include reports on net sales and net consolidated income before tax. Only 10 companies in France publish quarterly reports.

French companies listed on the Official Market or on the Second Market must publish quarterly consolidated sales reports, including net sales for the previous quarter. This data must be published in the BALO no more than 45 days after each quarter. Foreign companies have the same reporting requirements if they release this information in their home markets.

### II.8.5 Germany

The German stock market is composed of eight regional exchanges in Berlin, Bremen, Düsseldorf, Frankfurt, Hamburg, Hanover, Munich and Stuttgart. The three largest exchanges are Frankfurt, Düsseldorf and Munich. Together they account for roughly 90% of the trading volume in Germany. Fewer than 20% of Germany's companies are listed on the stock exchange. Moreover, very few German companies are listed on foreign stock exchanges.

NOTE – *Fundamental Analysis Worldwide*: Germany, Patricia Streit and Hakan Yuksel.

The Deutsche Borse AG (German Stock Exchange Inc.), a holding company established in 1992, owns 100% of the Frankfurt Stock Exchange, the largest in Germany, and the German Options and Futures Exchange. The Deutsche Borse was established to forge unity among the eight exchanges, whose independent operations sometimes cause confusion, particularly among foreign investors, because, for example, each quotes its own price for the same share.

NOTE – *Fundamental Analysis Worldwide*: Germany, Patricia Streit and Hakan Yuksel.

All German companies must, by law, report their financial results. Small companies do not have to be audited; medium-sized (see Note 1) and large companies (see Note 2) must obtain an independent auditor's opinion.

NOTE 1 – Medium companies are those with total assets of greater than DM 3.9 million and less than DM 15.5 million; sales greater than DM 8 million and less than DM 32 million; or those having more than 50 but less than 250 employees.

NOTE 2 – Large companies are those having more than DM 15.5 million in total assets, more than DM 32 million in sales or more than 250 employees.

### II.8.6 Japan

Stock exchanges in Japan were first established at the end of the 19th century, but the era of modern stock exchanges began with the Securities and Exchange law of 1948. Today, there are eight formal stock exchanges: Tokyo, Osaka, Nagoya, Hiroshima, Fukuoka, Niigata and Sapporo. Those in Tokyo and Osaka dominate trading volume. The stock exchanges in Tokyo, Osaka and Nagoya have First and Second Sections based on the number of shares listed, shares owned by the public, and trading volume. Most companies are first listed in the Second Section and move to the First Section as distribution of their shares to the public and trading volumes increase. The Tokyo Stock Exchange has a separate section for foreign companies, and the Osaka Securities Exchange opened a New Second Section in 1984 for small local companies. An over-the-counter market has been active since 1963 but was formalized in 1976. The reform of the over-the-counter market in 1983 was followed by the introduction of an automated quotation system in 1984. The current JASDAQ (Japan Securities Dealers Association Quotation) system was established in 1991. As of December 31, 1994, the over-the-counter markets listed 581 companies.

A company whose securities are listed on the formal stock exchange or are traded over the counter must submit annual audited financial statements to the Securities Bureau of the Ministry of Finance, the stock exchange(s), and the Security Dealers' Association within three months of the end of the fiscal year. The financial statements include consolidated financial statements and those of the parent company. The Ministry releases the financial statements to the public through its publications (*Yuhō* or *Yukashōken Hokushō*). They may be purchased in bookstores or directly from the Ministry's publications department. The stock exchange also provides the financial statements for public inspection.

Under the Commercial Code, companies are required to announce any major corporate events to the public through a designated newspaper. Preliminary operating results (*kessan tanshin*) are sent to the Ministry of Finance as soon as the financial statements have been audited and are ready for publication. The financial statements, including a balance sheet and income statement, are published in newspapers in abbreviated form. Footnotes are attached, reporting depreciation expenses and earnings per share. The fiscal year of most companies ends in March, so around the end of June each year newspapers publish special sections reporting this information. The companies are listed by industry categories.

NOTE – *Fundamental Analysis Worldwide*: Japan, Haksu Kim.

