Distr.
RESTRICTED

LC/R.934
15 October, 1990

ORIGINAL: ENGLISH

E C L A C
Economic Commission for Latin America and the Caribbean

CONSTRUCTION SERVICES AND THE URUGUAY ROUND: MAJOR ISSUES FOR LATIN AMERICA */

*/ This study was prepared by Mr. Reinaldo Gonçalves, a consultant to the International Trade and Development Division of ECLAC, for the Project UNCTAD/ECLAC/UNDP, RLA 87/019, "Assistance for Commercial Development and Trade Negotiations". The opinions expressed in this document are those of the author and do not necessarily reflect the views of the Organization. It has not been subjected to editorial revision.

90-10-1652

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INTRODUCTION

The purpose of this paper is to provide Latin American negotiators with background material for their participation in the multilateral trade negotiations on construction services.

Viewed in the context of the development process, it is hardly possible to overrate the strategic importance of construction. It is one of the basic components of the national technological capability and is a major component of the process of capital accumulation. At the same time, it has a major impact on employment of skilled and unskilled labor. Besides, a strong construction sector may have positive effects on the balance of payments through the direct exports of services and goods.

The building up of a national capability in construction services implies the development of a complex set of linkages all over the economy, affecting the rural and the industrial sector. The average share of the construction industry in total gross domestic product of developed-market economies is nearly 6%. In the developing world the corresponding figures vary widely, although it is quite possible that the average share is not very different from that found in developed-market economies. For instance, in Latin America and the Caribbean, the average share of the construction industry in total GDP was 5.7% in 1975, 6.3% in 1980 and 5.3% in 1986 (SELA.a, 1990, p. 93 and p. 100).

In this paper, emphasis has been laid on the interests of developing countries in general, and Latin America in particular. Section 1 presents a basic definition of construction services and deals with some features of this sector. Section 2 deals with the basic characteristics of the world construction market, with special reference to trends, structural changes, modes of delivery, sources of competitive strength, barriers and international contracting practices. Section 3 examines the applicability and the implications, regarding construction services, of the application of general concepts, principles and rules found in the Montreal text and in the SELA draft framework agreement (SELA, 1990.b). In Section 4, some broad strategic elements are suggested in the context of the regional co- operation and integration of developing countries. The last section presents some

general concluding remarks and prospective considerations on the international transactions of Latin America regarding construction services.

I. DEFINITION AND BASIC FEATURES

Construction differs from the other services insofar as it produces a tangible output. The construction industry has a "complete" production function: it brings together all factors of production (labor, land, capital, technology and management) and other inputs (equipment, materials, services ...) in order to have an output which is physical (material) in nature. The output of the construction industry can be classified, stricto sensu, in the following way:

(a) civil construction: residential buildings (houses and apartments) and nonresidential buildings (e.g., offices and stores);

(b) heavy construction: economic and social infrastructure facilities (e.g., power plants, roads, sewage systems); and

(c) industrial construction: industrial plants (e.g., refineries and manufacturing facilities) and the assembly and installation of equipment mostly in industrial plants.

These groups include activities regarding rehabilitation, improvement, repairs and maintenance of building and works (Hillebrandt, 1985, p. 19).

Among the above groups of construction services, civil construction is by far the most important one, both in developed market-economies and developing countries. To illustrate, in the United States builders accounted for 36% of total industry revenues, whereas heavy construction accounted for 20%, by the early eighties (OTA, 1986, p. 58). The corresponding figures for Brazil are 43% and 25% (Goncalves, 1990.a, p. 29).

The project execution services, that is, the services required during the stage of project implementation - the implementation or construction phase -, comprise procurement of materials, mobilization of labor, site preparation, earthmoving, supervision and testing of materials and equipment, quality control, etc.

By and large, the "production process" in the construction industry requires , during the first stage of development of construction projects, a sequence of services: project feasibility, conceptual design, engineering analysis, financial evaluation and so on. These can be classified as design and engineering services or business services.

The construction industry is also strongly related to project implementation services (the startup phase), such as, development of operations, maintenance procedures, manpower training and management services.

It is also true that the construction services industry involves a whole set of complex relations with all the major industries in the economy. A large-scale construction project may involve more than one hundred subcontractors and more than one thousand suppliers. In this respect, the linkages between construction services and manufacturing industries are quite important. This interdependence of economic actitivies involve capital equipment, spare and replacement parts, basic building products (e.g., lumber, cement and steel) and other manufactured products (e.g., piping).

As far as the organization of domestic construction services is concerned, there are some important points which are worth mentioning. First of all, domestic industries seem to be characterized by a diversification of activities of construction firms towards the design and engineering services and other business services. This is more evident in the case of medium- and large-size firms. The diversification occurs within the same area of specialization and is closely related to the "technological base" of the firm. It can be explained by the fact that the implementation of construction projects is just a phase of the construction process: large construction firms integrate "backward" and start producing design and engineering services, and they integrate "forward" and produce management services. (1)

Secondly, construction is a quite heterogeneous industry to the extent that one finds the co-existence of a large number of small- and medium-size firms with a few large-size and even giant firms. The market structure is, then, characterized by a relatively high degree of concentration. For instance, in the United States, the 4000 largest establishments (out of a total of 1.4 million construction establishments) accounted for 36% of total industry revenues in the early eighties (OTA, 1986, p. 58). In France, the share of fourteen largest firms in total industry revenues was 33% in the late seventies (Lee and Walters, 1989, p. 7). In Brazil, the 500 largest firms accounted for nearly 70% of total industry revenues in the early eighties (Gonçalves, 1990.a, p. 35).

In this connection, it is worth noting that market concentration is especially pronounced in heavy construction owing to the barriers to entry in this sector. In contrast with what happens in heavy construction, the design, consulting and engineering services, as well as other business services which work in conjunction with construction, present a low degree of market concentration and small firms tend to predominate (Lee and Walters, 1989, p. 3).

Thirdly, national firms tend to predominate in the construction industry. For example, foreign firms account for 4.3% and 0.8% of total employment in the construction industry in Brazil and in the United States, respectively. (2) Besides, the available evidence suggest that share of the construction industry in the total stock of foreign direct investment is not very significative (SELA, 1990, p. 36; Grupo Andino, 1988, p. 14). As a matter of fact, the preferred mode of delivery of construction services by foreign firms involve a temporary establishment. This point is developed further in the next section. In this regard, it is worth pointing out that in civil and engineering works the ownership-specific factors, which are the basic determinants of the process of internationalization of production, play a secondary role. By and large, this part of the construction industry is quite competitive and characterized by low barriers to entry. In developing countries, for instance, the construction of householding units is to a certain extent carried out by the "quasi-firms" of the informal sector.

Heavy and industrial construction, on the other hand, have oligopolistic market structures in which large national firms or conglomerates predominate. In general, barriers to entry are higher in heavy and industrial construction than in civil engineering works and general building. Although, foreign firms can overcome these barriers with the advantages provided by ownership-specific factors (e.g., technology, financing and management expertise). Here, however, the most important reason for the dominance of national firms is likely related to the "political economy" of the construction industry. That is, in most countries governments tend to sponsor the building up of national capabilities owing to the technological leverage and the strong linkages of the sector.

Fourthly, large national groups, both public and private ones, operating in the construction industry, have a significative influence on government policy. This is partially explained by the fact that contractors have, in general, a widespread "physical" presence all over the country and, therefore, are in a position to develop a sophisticated network of political contacts at different levels of government (district, city, state and national level) and in different regions of the country. Besides, the large construction groups have a strong influence on account of their wealth and economic power. It is not amiss to recall that large construction firms are among the most powerful pressure groups, in developing countries and developed-market economies alike.

Finally, construction is gradually becoming a high- technology industry, although it still has an intensive use of unskilled and semi-skilled labor (OTA, 1987, p. 121). Technological developments are related to design, construction methods, materials, specialized equipment and management systems. Higher productivity has been associated with computer applications which are becoming widespread in the industry: computer-aided design and drafting, computer-assisted automation of construction processes and equipment, and computer-based construction management systems (e.g., project scheduling, materials trackings and cost control) (Ibid., pp. 139-143).

II. THE INTERNATIONAL CONSTRUCTION MARKET

The international transactions of the construction industry are mostly related to heavy and industrial construction. Civil engineering works and general building (residential and nonresidential units) are overwhelmingly undertaken by the domestic industry owing to the low barriers to entry, as mentioned above.

Barriers to entry play, however, a determinant role in the national and international market structures of heavy and industrial construction. Generally speaking, such barriers may result from the advantages of large-scale operations, especially of those firms oriented to public works, transportation facilities and infrastructure development. With respect to international transactions, of foremost importance is the ability of large transnational construction groups to mobilize and use resources (labor, financing, equipment, management) on a world scale. The underlying dynamics of the internationalization of production of construction services is, nevertheless, dependent upon the interaction of not only owership-specific factors (at firm's level), but also of locational-specific elements (at the level of the country of origin and destination of the flow of services). This point is discussed in details in Section 2.2.

As a result, international transactions in construction services are, in general, carried out by a relatively small group of very large firms. To illustrate, eight U.S.-based firms, each one with new contracts amounting to more than US$ 1 billion, accounted for 83.7% of the total value of new contracts for foreign work won by the 43 largest American contractors in 1985 (Niosi, 1988, p. 74). (3) Sixteen European firms, each one with new contracts adding up at least US$ 500 million, out of a sample of 116 largest European contractors, were responsible for 51.2% of total billings in 1985. As regards Japanese international transactions, the largest 6 firms with new contracts amounting to at least US$ 500 in 1985, accounted for 49.2% of the total value of contracts.

Available evidence for individual developing countries lends support to the high concentration of international transactions in construction services. As regards South Korea, foreign contracts awarded to the three largest firms

amounted to 72.0% of total billings in 1985 (Ibid.). With respect to Brazil, the three largest contractors accounted for 78% of total financing given by the Brazilian government in support of construction services exports in the period 1976-83 (Guimaraes, 1984, pp. 59-60).

As a matter of fact, exporters of construction services from developing countries have been associated with large industrial groups (e.g., Taiwan and Turkey) or are parts of large conglomerates (e.g., South Korea and Brazil). European and Japanese construction exporters are also parts of large conglomerates and have been involved in acquisitions and mergers in the last decade (Niosi, 1988, pp. 76-78).

1. Recent Evolution and Strategies

The world construction market has been characterized by a remarkable downturn in the last decade. The most noteworthy aspect has been the sharp drop of international transactions since the beginning of the external debt crisis of developing countries in 1982. New contracts awarded to the top 250 international contractors declined from US$ 134 billion in 1981 to US$ 74 billion in 1986-87 (Table 1). By the end of the decade construction services witnessed a modest recovery, though contractors were still facing a sluggish world market.

What are the main reasons for a shrinking world construction market in a period of an exceptionally rapid growth of world trade and production?

The evolution of the international construction market depends to a very large extent upon the economic performance of the developing world. On the demand side, developing countries accounted for more than 80% of the total world construction market in the early 1980s. The market shares of Latin America and Middle East were 34.3% and 13.9%, respectively, in the period 1980-81. The drop of the commodity prices and the external debt crisis, which affected the whole developing world, were the major determinants of the sharp downturn of the international market for construction services.

With the exception of South and South-East Asian economies, developing countries have shown a poor economic performance in the 1980s. Latin American and African countries have witnessed a deterioration of their ability to

achieve a sustained growth process owing to the net transfer of financial resources associated with the external debt service and the weakening commodity prices. Latin America and the Caribbean had a negative per capita GNP growth of 1.2% over the past decade, whereas Sub- Saharan Africa also had a negative growth rate of 2.2%. Investment ratios and capital accumulation have fallen to very low levels.

The unfavorable external environment was also an important determinant of the deterioration of the public sector deficit in developing countries. Governments and public-owned enterprises in developing countries not only account for most part of the external debt, but also are the most important consumers of construction services, both in developing countries and developed- market economies. In the context of macroeconomic stabilization programmes, governments have applied expenditure- reducing measures. The reduction of aggregate demand has involved a contraction of investment expenditures of the public and private sector in developing countries over the last decade. In this regard, for almost all countries of the developing world, the 1980s was a period of very significative contraction of investments in economic and social infrastructure. It has been considered the end of the era of megaprojects.

Notwithstanding the extraordinary decline of the demand for construction services in the developing world, it still accounts for the largest share of the international construction market. Even in 1986 and 1987, the through of the downturn, the shares of developing countries in the total demand for construction services in the world market were 73.4% and 61.2%, respectively (Lee and Walters, 1989, p. 35; UNCTC, 1989, p. 12).

It is worth pointing out that between the peak (1980-81) and the through (1986-87) of the international construction market the nominal value of the new contracts declined 38.0%. In this period the total nominal value of new contracts awarded to foreign contractors in Latin America and the Middle East was reduced by 63.0%, whereas in the rest of the world the corresponding drop was 14.2%. The share of these two regions declined from 48.3% in 1980-81 to 28.5% in 1986-87. As a result, more than four-fifths of the negative growth rate of the world construction market in this period is explained by the contraction of transactions in Middle East and Latin America. The former was

badly hurt by the drop of oil exports and prices, and as regards the latter, its development was hindered by the external debt crisis over the last decade.

On the supply side, a remarkable feature of the international construction market has been the sharp drop of the United States share from more than 40% in the beginning of the decade to less than 30% by the end of the 1980s. There are two reasons for this fact. First of all, U.S.-based firms, which accounted for 70% of the world market for construction services in the late 1960s (OTA, 1987, p. 132), were confronted with the increasing competitiveness of European and Japanese contractors. Some large firms from developing also catched up in construction technologies and methods and started entering into the world market.

The second reason is that the collapse of the Middle East and Latin America markets has badly hurt U.S. overseas construction. Over the 1980s, U.S.-based firms were much more exposed to these shrinking markets than construction firms from Europe and Japan. In the through of the downturn over the last decade (1986-87), the average share of the domestic markets of these two regions in overseas production by U.S.-based firms was 42.0%, whereas the corresponding figures for European and Japanese contractors were 23.0% and 12.0%, respectively. (4)

In contrast with the poor performance of U.S.-based firms, European contractors have been able to increase their share of the world market from less than 40% in the early 1980s to nearly 50% by the end of the decade. Japanese construction firms more than doubled their share from approximatelly 5% to nearly 13% over the decade.

Contractors from developing countries, which started to show a competitive strength during the 1970s, have witnessed a reduction of their total share of the world market from 18% in the beginning of the 1980s to nearly 8% by the end of the decade. South Korea, by far, the largest exporter among developing countries had its share of the world market reduced from an average of 9.5% in 1980-81 to 2.5% in 1987-88. This sharp drop is explained by the almost total dependence of South Korean overseas construction on the Middle East market. (5)

In this connection it is worth noting that between the peak of the world construction market (late 1970s and early 1980, up to 1982) and the through of

the downturn (1986 and 1987), there is a remarkable reduction of the number of construction firms from developing countries among the 100 largest construction firms according to the value of new foreign contracts (UNCTC, 1989, p. 17). The most striking fact is that the number of South Korean contractors declined from 11 in 1978 to 4 in 1986; whereas, the number of contractors from other developing countries was 11 in 1978 and 1986. It is worth noting that among the largest contractors from Latin America and the Caribbean, there were two firms (from Argentina and Brazil) in 1978 and none in 1986 (Ibid.). Although there is a redistribution among other developing countries in terms of their presence in the list of the 100 largest construction firms, most of the countries have just one contractor in this list. The exceptions are - besides South Korea - Yugoslavia and Turkey, both with three firms in the list.

Notwithstanding the limited scope for generalization on the basis of this type of data, it may be tentatively put forward the argument that overseas construction by firms from developing countries are, in general, characterized by the entry into very limited market niches. The exception is found in the performance of South Korean firms in the Middle East the period 1976-85 (Kim, 1988). While it is true that developing-country contractors have significative cost advantages in labor-intensive construction projects, it is probably even truer that government-to-government relations have a decisive influence on the international transactions of construction services. (6) This argument is discussed further in Section 2.2.

Some large construction groups from developing countries, which had become quite competitive owing to accumulated experience in their domestic market, sought to penetrate into the international market as part of their strategies of expansion during the 1970s. These groups are very much specialized in the unskilled-labor-based projects mostly oriented to the construction of transportation and public works facilities in the developing-country markets. In addition to a contraction of demand for investment in these types of services, developing- country contractors have been faced with an increasingly intense competition, including among themselves. Indeed, exporters of construction services from developing countries have had to define their business strategies in the context of a

contraction of their domestic markets and the sharp drop of the world market.

In response to an unfavorable business environment, construction groups from developing countries seem to have choosed two differents strategies for their expansion. The first strategy aims at a deeper penetration into the world market taking into account the structural changes of the last decade. The second strategy involves an emphasis on diversification within the country of origin, notwithstanding the efforts towards overseas construction.

As concerns the former, the scanty information available seems to suggest that construction firms, which are parts of large industrial or financial conglomerates in their home country (e.g., South Korea, Taiwan and Turkey) have gone deeper into the process of internationalization. Despite the fall of profit rates of overseas construction, these groups have been engaged in acquisitions and the establishment of subsidiaries in developed market economies, with a "revealed preference" for the United States (Kim, 1988, p. 236; Niosi, 1988, pp. 79-81). It has to noted in this connection that these groups have had a rather limited success in their attempts to go further in their process of internationalization.

The second strategy implied the transformation of large contractors into important conglomerates within the domestic market. Considering the poor prospects of both the domestic and world markets, these firms looked for market ooportunities in their own market and engaged themselves in the production of a wide variety of goods and services. This is the case of Brasil, where the very large firms, which originally were specialized in heavy construction, diversified their activities and entered into finance, manufacturing, transport, agriculture, mining, and in a myriad of sectors (Goncalves, 1990.b). This is not to say that these groups gave up overseas construction. Given unfavorable market conditions abroad and a set of profitable market oportunities in the country (not related to construction services), the large construction firms were flexible enough to adapt their strategies and show a remarkable performance during the last decade.

With respect to the reaction of contractors from developed market economies to the changing market conditions, it is worth mentioning that firms from the U.S. and Canada have also been involved in a diversification strategy (e.g., mining, banking and chemical products), through acquisitions, mergers

and joint- ventures. These firms are looking for new oportunities in high-technology industries (OTA, 1987, p. 147). In the specific case of U.S.-based firms, emphasis has been laid on industrial process technologies and on the development of proprietary technology related to management services. Besides, American construction firms have undertaken efforts together with manufacturing firms so as to develop proprietary technologies and, therefore, enhance their international competitiveness.

European firms involved in overseas construction are parts of large industrial or financial conglomerates, either private or public ones. In the last decade they have promoted their growth through aquisitions and fusions, although they do not seem to have made major efforts towards further diversification (Niosi, 1988, pp. 75-76). Penetration into the U.S. market is also an important aspect of the growth strategies of European contractors (OTA, 1987, p. 148).

Likewise, Japan overseas construction have increasingly been oreiented their investments towards North America (mostly the U.S. market), whose share of total stock of Japanese foreign direct investment in the construction industry was 43.6% in 1986 (UNCTC, 1989, p. 23). This fact can be explained not only by the large size and stability of the U.S. market, but also by the opportunities for building industrial plants for Japanese transnational enterprises operating in this market. Japanese construction firms with overseas operations are also related to the large conglomerates (e.g., Mitsui and Mitsubishi).

2. Sources of Competitive Advantage and Modes of Delivery

Exporters of construction services face a fierce competition in the international market. The prospects are for an even more intense struggle for market shares in the future. This fact is particularly true in the case of unskilled-labor-based projects. The high degree of contestability of the world construction market is to a large extent explained by the underlying dynamics of the sources of competitive strength of individual firms and countries.

The competitive strength depends upon the interaction of ownership-specific advantages of contractors with the comparative location

endowments (location-specific advantages of countries) of home and foreign countries. The former is mainly influenced by monopoly power (e.g., proprietary technology), size, resource capability and usage. The latter refers mostly to resources available in a country, the institutional background (e.g., government policies), market size and growth. (7)

Broadly speaking, this interplay of ownership-specific advantages and location-specific advantages is the basic determinant of the three basic sources of competitive advantage in the world construction market, namely, labor costs, technology and financing.

Labor costs are especially important regarding heavy construction. To the extent that developing-country contractors use labor from their home countries, they have a competitive advantage. Nevertheless, it is noteworthy in this connection that in overseas construction, firms from developed market economies can to a certain extent offset large wage cost differentials when they rely on unskilled and semi-skilled labor hired in host country markets or in low-wage third countries. Besides, ownership-specific advantages with respect to management expertise and technology may reduce further the importance of wage costs.

The recent technological developments related to construction methods, industrial processes, application of materials and equipment have had an increasing influence on the patterns of comparative advantage in the construction industry. In this regard, the scanty information available suggests that U.S.-based firms are developing further their competitive strength on the basis of computer-assisted construction management techniques (OTA, 1987, p. 138 sqq). As a matter of fact, these firms rely on the domestic capability in informatics (a location-specific factor). A highly developed electronic industry in the U.S. brings about externalities so that American contractors stress computer applications in their competition strategies. European and Japanese construction firms show a greater advantage in the development of construction techniques, by and large, on account of their experience with construction projects in their home markets.

It is worth noting in this connection that a major source of competitive advantage at the level of the firm , that is, a component of the ownership-specific advantages, is the accumulated experience in solving

problems, both in domestic and overseas production. It has been pointed out that large contractors from developing countries were able to entry into the world market - especially in the own developing world -, owing to their past experience in adapting technologies appropriate to the conditions of their home market. Another ownership-specific advantage of developing-country contractors seems to be related to the management of large-scale and labor-intensive projects.

The interplay of ownership-specific factors and location- specific elements is quite evident in the case of the third source of competitive advantage of construction firms, namely, their ability to assemble financial packages for construction projects abroad.

While it is true that price competition is especially important in a shrinking world market, it is also true that financing plays a critical role mainly in the contract awards to implement large-scale construction projects in Latin America, Asia and Africa (Lee and Walters, 1989, pp. 53-54). The ability to assemble financial packages for overseas construction is an ownership-specific factor (due, for example, to size or favoured access to resources), which gives to individual firms a competitive advantage in the world market. It has to be pointed out, however, that financing for overseas construction depends to a very large extent on national government agencies and multilateral financial organizations.

National governments have provided development assistance (more specifically, tied aid) and export credits which have had a major influence on the export performance of contractors. With respect to bilateral assistance programmes, the historical experience of the last three decades has shown that development grants or loans have been tied to the export of goods and services by firms from the donor country. (8)

Likewise, governments have provided subsidized financing in the form of export credits. Favourable terms and conditions (e.g., below market interest rates) of official export credit financing have undoubtedly led to a widespread subsidization of construction services exports. Government subsidies involve not only long-term financing costs, but also provision of insurance and subsidies for feasibility studies, bidding costs, and consulting and engineering services. Besides, according to observers,

"official financial subsidies to firms operating in third markets are increasing in the international construction industry" (Lee and Walters, 1989, p. 73). This argument is by no means a surprise, if one takes into account that competition will remain stiff in the world construction market.

At this juncture, it has to be said that ownership- and location-specific advantages are not only the basic determinants of the process of internationalization of production, but also their interplay is a critical determinant of the underlying forms of this process, namely , trade (exports) and foreign direct investment.

As specifically concerns the modes of delivery of construction services in the international market, the situation is more complex. International construction transactions may involve the cross-border movement of construction services (trade) and the cross-border movement of capital cum foreign control (foreign direct investment in subsidiaries, branches, representative offices, joint ventures and partnerships). Overseas construction may also occurs via a cross-border movement of labor. That is, international construction activities may involve neither trade nor foreign direct investment.

In the construction industry, the cross-border movement of services plays a minor role and is, in general, limited to the provision of different types of business services, such as, consulting, design, engineering, management and information services (e.g., regarding financing). The cross-border trade occurs, then, through telecommunications, a business report, a letter, a telephone call, a diskette and so on. With respect to the cross-border movement of services embodied in specialized equipment, it should be considered as trade in goods.

It is noteworthy that the establishment of a network of representative offices in foreign countries may constitute an important source of competitive advantage. Also, international construction firms may be forced into joint international business ventures, in which they hold less than 50% of the equity, owing to the policies and regulations of the host-country government. When a specific market has significative business opportunities and a growth potential, international contractors may establish a foreign affiliate or

subsidiary. For example, the present strategy of some large international contractors regarding their entry into the U.S. market through aquisitions.

Nevertheless, overseas construction occurs to a large extent through a temporary cross-border movement of factors of production (GATT, 1989, p. 4; Soubra, 1989, p. 201). By and large, it envolves the cross-border movement of unskilled- and skilled labor. The transfer os management expertise, which is a key element in construction, may be seen as a service embodied either in skilled personnel or goods (computer, diskettes, manuals) or both.

3. International Contracting Practices and Barriers

Bidding procedures vary widely in the international construction market. A basic procedure ("design-construct") involves a single contract for the different and sequential phases of a construction project. Another procedure ("design-bid- build") implies two bidding processes: the first one for the initial phase of the project (consulting and engineering services) and the second one for the construction itself. Bidding procedures may also involve a list of invited firms and several "rounds". The criteria used in foreign bidding vary from country to country, from project to project. Decisions are taken on a case-by-case basis, but the underlying elements of bidding are price, technical competence (experience) and financing.

The most important feature of the world construction process is that governments, the largest clients, have a strong "revealed preference" for local contractors. In this regard, when domestic markets are not closed to foreign competition owing to a myriad of barriers, governments require foreign contractors to hire local labor and enter into international consortia. Another usual practice is to require the formation of joint ventures and local procurement of equipments and materials.

As a matter of fact, market imperfections play a dominant role in the construction industry. These imperfections stem from the the conduct of (large) contractors in their domestic markets and from government regulations affecting exports and imports. The former was examined in Section 2.1 and the latter is discussed in the following paragraphs.

Of foremost importance is the fact that construction is one of the most protected services, both in developed economies and developing countries. Although trade barriers differ from country to country, there is a consensus that subsidization for exports and government procurement policies are the predominant distortions in the international transactions of construction services. (9)

With respect to government subsidies for exports of construction services, the basic types are the following: (a) direct and indirect financial subsidies; (b) tax subsidies; and (c) guarantees and insurance against losses abroad.

The first type refers to subsidizing export credits, mostly in terms of favourable interest rates, related to feasibility studies, bid proposals and operational costs. The second type refers to tax exemptions on export revenues and for exports of machinery, equipment and materials. Finally, government guarantees regarding profits on overseas production and counter- guarantees of export financing are also important determinants of competitive edge. Government support also involves insurance and reinsurance against financial and political risks of overseas production.

Government regulations on imports also play a crucial role as barriers to entry in the domestic markets. The most important barriers are the following:

(a) government procurement: governments have a "revealed preference" for local contractors, or contracts are awarded only to national firms, foreign firms are only accepted as subcontractors, or are faced with the absence of foreign bids;

(b) currency restrictions: there are limitations regarding capital repatriation, profit remittances, and convertibility of currency; barter and countertrade have also been used as methods of payment involving construction services;

(c) licensing restrictions: registration requirements and discriminatory licencing procedures;

(d) tax discrimination: it refers to tax on profits and on imports of goods and services;

(e) barriers to trade in goods: non-tariff and tariff barriers affecting imports of equipment and materials; local procurement requirements so as to

maximize the use of local equipment and materials; and technical standards may also be used as a non- tariff barrier;

(f) bidding procedures: the wide differences in bidding procedures across countries as well as the non-transparency of these procedures;

(g) technical standards: regulations on architectural, engineering and technical standards, and health and safety standards;

(h) regulations on labor movement: visas provisions, work permits, personnel qualifications and local personnel training and requirements (to maximize the use of local labour); and,

(i) investment barriers: difficulty in establishing subsidiaries or offices, local partnership requirements and limitations regarding equity participation.

To conclude this section on the international construction market, it is worth pointing out the basic asymmetry found in the construction industry in developed countries. On the one hand, the immigration of construction workers to the developed countries has been an important determinant of the process of building up domestic construction capabilities in these countries. (11) On the other, developed-country governments have been able to restrict the access of foreign contractors to their domestic markets. As specifically concerns the exports of construction services from developing countries to the developed world, the situation can be described in the following way: the capital factor immobile but the labor factor mobile. However, the most important fact is that the cross-border movement of labor to the construction industry is strictly controlled by immigration laws and poliicies. The objective is to regulate the supply of unskilled and low-skilled labor to the domestic construction industry, through the presence of the immigrant worker.

The asymmetry pointed out in the previous paragraph has two important implications. Firstly, although developing countries account for the largest share of the total demand for international construction services, the largest potential market is the developed world - in the absence of barriers and restrictions on the mobility of factors of production. Secondly, multilateral trade negotiations on construction services will have to deal with this basic asymmetry.

III. THE APPLICATION OF GENERAL CONCEPTS, PRINCIPLES AND RULES

The international transactions of construction services depend to a large extent on the regulations on labor and capital movement. Negotiations to reduce or eliminate the restrictions to market access have to deal directly with these issues, though the preferred mode of delivery of construction services has involved a temporary movement of both capital and labor.

As far as the construction industry is concerned, in the definition of trade in services, the basic point is not so much the essentiality of production factors movement or the discreteness of any transaction, but the time dimension of cross- border movements of labor and capital. An assimetry of treatment regarding this time dimension (temporary versus permanent movement) has an influence on the interplay of ownership-specific elements and location-specific factors and, therefore, on the sources of competitive advantage on a world scale.

Bearing in mind the above considerations, this section presents an assessment of the general concepts, principles and rules found in the Montreal text and in the SELA draft framework agreement, in the context of the international transactions of construction services.

1. Transparency

Considering that regulations play a critical role in the construction industry, transparency is a key element of a future agreement on trade in construction services. All laws, regulations and administrative guidelines should be published and made available to all contracting parties and possible foreign contractors.

Given that most of the technical progress in the construction industry stems from university civil engineering departments, government laboratories, research and information centers, and from suppliers of specialized equipment and materials, it is important that full information should be made available not only to governments and construction firms, but also to any interested firm and information center. This is particularly relevant to developing countries in their process of co-operation and integration. Programmes of

technical assistance at a regional level, for instance, could benefit from a greater transparency.

It is worth pointing out that transparency is related not only to the regulatory systems, but also to the implementation of the procedures and rules. Besides, transparency refers to regulations of federal, regional and local authorities as well as to the standards defined by private organizations and professional associations.

Governments should establish enquiry points for providing information on the basis of specific requests. Procedures should be carefully defined regarding requests for and provision of information, so that it is provided as quickly as possible, and at a low cost.

With respect to the construction industry, there should be special emphasis on the transparency of bidding procedures. Also, a detailed information on government procurement policies should be made available.

With respect to the regulations on the movement of capital, it is worth noting that the evidence available for developed market economies shows that the largest obstacles are not found in laws on foreign direct investment (Safarian, 1983, p. 1). Discriminatory treatment occurs through specific administrative processes which are not published. Then, these processes should be made public.

Finally, governments should provide full information about conditions and possibilities regarding the international migration of labor in the construction industry. This information should refer to both unkilled- and skilled-labor. As regards the latter, personnel qualifications which are part of immigration regulations should be clearly stated for all professional categories.

2. Progressive Liberalization

Barriers inhibiting market access should be gradually reduced or eliminated. Progressive liberalization is a long-term process and governments should agree on periodic negotiating rounds. These rounds would include review mechanisms regarding methods of assessment of the ongoing process of liberalization as

well as the rules, modalities and procedures for national liberalization undertakings.

As concerns the construction industry, there should be a balance regarding the liberalization of investment barriers and regulations on the international movement of labor.

Given the principle of relative reciprocity, the establishment of foreign contractors in developing countries should be in accordance with the general laws and performance requirements at the sectoral level. More specifically, foreign contractors operating in developing countries may be faced with local procurement requirements, local personnel training, and local partnership requirements.

Regulations on temporary or permanent movement of labor should be reduced. The entry of members of the liberal professions is affected by regulations on visas, work permits, residence permits, nationality requirements, personnel qualifications (professional diplomas, labor certification tests and so on), and technical standards. The migration of low-skilled workers, on a temporary or permanent basis, implies a work contract with a national or foreign firm which carry out construction projects. The problems also refer to unfair and discriminatory procedures regarding visas, work and residence permits (SELA, 1990.b, pp. 45-53). Progressive liberalization could possibly occurs in the case of regulations on "temporary- factor-relocation" visas and work permits.

Proegressive liberalization should deal specifically with government procurement policies. The "buy national" preferences should be reduced or eliminated. Liberalization in the world construction market also involves the reduction or elimination of subsidies to exports of construction services given, for the most part, by developed-market economies.

Progressive liberalization of construction services should be in conjunction with the availability of external financing, especially regarding large-scale projects which have a major impact on the balance of payments. In this regard, the mechanism of "liberalization cum external financing" is consistent with development objectives on a long-term perspective and, therefore, it should be a component of the progressive liberalization of trade in services in the developing world.

3. National Treatment

Foreign suppliers should be accorded treatment no less favourable than that accorded to domestic suppliers. This is an essential principle in so far as it implies effective equality of opportunities regarding market access.

In the construction industry there are several barriers which discriminate against services exports or exporters. Subsidies for exports, government procurement policies, and regulations on the international movement of factors of production are among the most important discriminatory practices.

With respect to the operations of foreign firms in developing countries, national treatment or market access commitments do not exclude the possibility of laying down certain conditions (Soubra, 1989, p. 205). These conditions would refer to mechanisms of technology transfer (e.g., training programmes, linkages with the local engineering and consulting firms) and to building up national capabilities.

4. Most-Favoured-Nation/Non-Discrimination

This principle accords to all countries benefits that are accorded to any other country without discrimination and on a unconditional basis. Exceptions from the most-favoured-nation clause refer to special trade and integration agreements among developing countries and to the preferential market access opportunities for developing countries.

Reciprocal agreements and national reciprocal regulations are, by and large, not found in the construction industry. There are, nevertheless, examples of bilateral agreements involving the liberal professions regarding the licencing regulations and registration (e.g., British and American architects). (11) In this regard, it is worth noting that the economic integration of Europe during the 1990s is likely to involve bilateral or multilateral agreements on professional licencing and registration regulations.

With respect to the construction industry, there continues to existe discrimination in so far as contracts for overseas production are negotiated

by governments. At issue is the extent to which governments intervene in the awards of construction contracts abroad on account of their foreign policies and the use of international power and influence.

5. Increasing participation of Developing Countries

Considering the assimetries between the developed and the developing world, GATT contracting parties have agreed about the increasing participation of the latter in the international trade of services. The expansion of service exports from developing countries requires the strengthening of their domestic services capacity, efficiency and competitiveness. The improved access to distribution channels and information networks is consideraed as an important condition to achieve these objectives.

With respect to the world construction market, competitive advantages are to a large extent determined by privileged access to financing and technology. Hence, the growth potential of service exports from developing countries is determined by the standstill and rollback commitments regarding special financing facilities and subsidies available to developed-country contractors.

On the supply side, the export capability of developing countries will depend on their ability to strengthen the mechanisms of technology transfer (proprietary construction methods and management expertise). Provisions for technology transfer may involve requirements concerning the establishment of joint-ventures, training programmes, screening of licencing agreements, and so on.

It is worth pointing out that to enhance national capabilities in the construction industry, developing countries need financial support. In this regard, of foremost importance is the reverse of the present situation whereby developing countries (Latin America, in particular) are net exporters of capital to developed-market economies.

Developing countries should, then, be faced with an appropriate flexibility to liberalize their trade in services. It implies inter alia a longer time period to undertake the same commitments as developed countries. Developing countries should be in a position to define, in the context of

their static and dynamic patterns of comparative advantage, priorities regarding imports and exports of services. Only a handful of developing countries would be able nowadays to start the liberalization of their domestic construction industry.

Preferential regimes for services exports from developing countries should also be an instrument to increase their participation in the world construction industry. The gains from trade would be the most significative ones in those civil and engineering works in which developing countries have a low-labor cost advantage. In this connection it may be noted that there should be agreements related to the temporary movement of skilled, semi-skilled and unskilled labor.

Finally, the increasing participation of developing countries in the world construction industry implies the principle of relative reciprocity. Thus, developing countries should not be expected to make concessions which are not in accordance with their own development objectives.

6. Safeguards and Exceptions

A particularly sensitive issue in the present round of trade negotiations relates to the fact that the prospects of developing countries for balance-of-payments adjustment do not seem to be favourable in the near future. There continues to exist a disequilibrium on account of the external debt crisis which affects especially Latin America and Caribbean. Thus, developing countries need safeguard mechanisms exclusively for balance-of-payments adjustment.

Provisions for exceptions based on national security and cultural policy objectives are important regarding the construction industry. The construction of nuclear power stations, dams, airports and defense facilities may involve restrictions on the grounds of national security. Architectural standards also fit into the context of exceptions.

Safeguards can also be applied on a temporary basis as a response to predatory competition and restrictive business practices which affect adversely the domestic industry. Also, it can be applied to deal with

structural problems (e.g., building up national capability in construction services, technological development) and infant industry protection.

Provisions for safeguards and exceptions affect market access opportunities and, therefore, fail to comply with the principles of progressive liberalization and national treatment. Nevertheless, the present balance-of-payments situation of most developing countries and their structural disequilibria justify a flexibility for these countrys to apply safeguards and exceptions, especially in the case of large and expensive construction projects which have widespread effects on the external accounts, technology transfer, and so on.

7. Regulatory Situation

There is a significative assymetry between developed economies and developing countries regarding their regulatory systems - the former have much more sophisticated regulatory systems than the latter. It implies that, as far as developing countries are concerned, liberalization and de-regulation must not be looked upon as synonymous. Hence, developing countries have the right to introduce new regulations with respect to the construction industry. This is particularly important because construction is one of the most regulated sectors in developed economies.

The introduction of new regulations in developing countries with respect to the construction industry may be related inter alia to quality of services, consumer protection, environmental protection, and technical and safety standards.

Besides, international competition in construction services involve unfair trading practices, such as, dumping, tied aid and subsidies. These practices have been widely supported by developed-country governments. Furthermore, with respect to the behaviour of large contractors, it is worth calling attention to the use of restrictive business practices, such as, collusive tendering and market-share arrangements.

As far as developing countries are concerned, there is no doubt that an increasing international competitiveness in construction services will depend

on the ability of governments to create and consolidate regulatory institutions and to introduce and implement appropriate regulations.

IV. REGIONAL CO-OPERATION AND INTEGRATION

The legitimacy of provisions for preferential arrangements among developing countries regarding trade in services is recognized by the SELA draft framework agreement (Article 5). The implementation of integration agreements may strengthen the domestic service capabilities of developing countries and, therefore, bring about greater opportunities for trade liberalization on a multilateral basis.

The inclusion of services in existing preferential schemes or the establishment of new agreements involve issues regarding the appropriate institutional and legal framworks as well as the operational mechanisms.

Notwithstanding the fact that services have received only a marginal attention in preferential arrangements among developing countries, there are different institutional and legal frameworks which can be improved, adapted or expanded so as to deal with the specific issues raised by trade in services (Abugattas, 1989, p. 439).

Within preferential arrangements, and concerning trade in services, the application of general principles, concepts and rules refers, in general, to national treatment, right of establishment and the free movement of production factors (Grupo Andino, 1988, p. 16; SELA, 1990.b, p. 81). To foster co-operation and integration involving trade in services among developing countries, governments have to show a strong political commitment towards market access at the regional, subregional and interregional level. Therefore, the institutional frameworks have to incorporate the principles of transparency, non- discrimination, national treatment and progressive liberalization. A gradual liberalization of restrictions on the free movement of production factors is also an important aspect of the co-operation arrangements.

As regards operational mechanisms, there should be permanent committees at a sectoral level which would be able to define a long-term work programme. These sectoral committees should be based on a tripartite model with the participation of government, private sector business associations, and representatives of trade unions and/or professional associations from each country member of the agreement. The advantage of this model is that

different interests and perspectives can be brought together in bilateral or multilateral negotiations at the regional or subregional level.

Different regional and subregional co-operation and integration agreements have shown a rather limited experience regarding operational mechnisms whereby provisions have been put into effect. This is true for trade in services in general, and for construction in particular. It can be said that there are only few sectoral provisions or agreements especially related to construction in preferential arrangements among developing countries. It is noteworthy in this connection the provision of the Central American Common Market whereby contractors from the member countries are granted national treatment. This provision is just related to the implementation of infrastructure projects (Abugattas, 1989, pp. 448-449). (12)

As specifically concerns construction, there are some important operational aspects and mechanisms which could be implemented in preferential arrangements among developing countries.

Firstly, developing countries should carry out an harmonization of national regulatory systems. Bearing in mind that construction is one of the most regulated industries all over the world, the consolidation and harmonization of national regulations would allow developing countries to upgrade their technical, safety and health standards. The upgrading of national regulations should also involve the anti-trust legislation. This is a particularly important aspect to the extent that overseas construction is dominated by large firms. The reduction or elimination of unfair trading practices and restrictive business practices should be a priority in the preferential arrangements. Greater international competitiveness of developing-country contractors depends upon a non-permissive intra-regional market.

Secondly, governments should aim at establishing systems for the exchange of information and experience in the context of preferential arrangements. Assuming that the greater transparency of service regulations in developed countries will be facilitated by the establishment of enquiry points for providing information, it is important that developing countries take advantage of this mechanism. In this regard, developing countries should work in a cooperative way so as to maximize the efficiency of their access to this

mechanism. At the sectoral level, member countries of a preferential agreement could establish information centers which would be the intermediaries between the enquiry points and the members of a network of information at the regional or subregional level. This would have a positive impact on the construction capabilities of developing countries insofar as construction is a very regulated industry and, therefore, there are great opportunities for scale economies with respect to access to information and marketing channels.

Thirdly, in conjunction with the establishment of information centers, in the context of co-operation and integration agreements, developing countries should create technical centers oriented towards joint research related to construction methods, specialized equipment, materials, technical standards and management systems. These centers would be an active part of the scientific and technological communities of the countries. They would work on joint projects involving universities and the laboratories of private and public-owned enterprises. The activities of research and development would be concentrated on specific projects funded by governments, firms and international organizations. They would also play an important role in the programmes of technical assistance.

The experience of technical centers in developed countries, as instruments for industrial cooperation, suggests that these centers are not supposed to replace universities and departments of R&D of large firms. On the contrary, these centers should be governed by the logic of markets - national, regional and international alike (Muller, 1990). Given that these centers are operating on a regional or sub-regional basis, they have exceptional advantages.

Fourthly, governments should be prepared to change their procurement policies in the context of co-operation and integration agreements. In this regard, member countries could establish a margin of preference related to international bidding. As concerns construction, the margin of preference is the difference in percentage points between the price proposed by a foreign contractor (i.e., a firm from oustside the preferential trade zone) and the price proposed by a firm from a member country. Hence, if there are no significative differences with respect to technical expertise or competence and financing arrangements, firms or consortia from member countries will

receive a preference on contract awards, even if their prices are, say 15%, higher than those of the foreign contractors. There should be, within the preferential integration agreement, some sort of compensation mechanism; for instance, member countries can negotiate among themselves and with international or regional development agencies a special fund for that purpose.

Fifthly, developing countries participating in regional co-operation and integration agreements, should endeavour to change the present "revealed preference" of international financial institutions for large contractors from developed economies. Member countries should constitute pressure groups so as to lobby for changes in the behaviour of international financial institutions.

Finally, financing will undoubtedly play a key role in the success of preferential regional or subregional agreements involving constructions services. Most developing countries, especially Latin America and Caribbean, are facing two critical problems: public deficit and external-debt service. The former is strongly intertwined with the latter. Hence, the success of any specific agreement related to construction will depend on the ability of countries to overcome these problems. The basic question is: To what extent developing countries will be able to provide financing to their process of capital accumulation and, therefore, to the implementation of construction projects, in the future?.

To circumvent the financial constraints, developing countries may use "second-best" solutions in the context of preferential agreements. Countertrade and barter, involving goods and services, may be used as a method of payment. These methods have, however, some significative transaction costs and, therefore, they impair co-operation and integration among developing countries. In this regard, the construction industry is a conspicuous example of the strong links between trade liberalization and availability of financial resources - external and internal alike.

V. CONCLUSIONS

The multilateral framework for trade in services will be accompanied by agreed sectoral annotations. These annotations will include clarifications and modifications of the general provisions of the basic framework. Given the specific characteristics of the construction services, it is quite possible that future negotiations will require a sectoral agreement.

Future negotiations regarding international transactions of construction services will have to deal with very sensitive issues, such as, international migration of labor, government procurement policies, subsidization of exports and restrictive business practices of large contractors.

Furthermore, it is important to bear in mind that, on the one hand, construction services have been an instrument of foreign policy and, on the other, governments have used their influence and power to promote exports of construction services. Thus, economic factors are closely intertwined with political elements.

Recent developments in the international construction industry have shown that, although competition is stiff, barriers to entry into the world market are very high owing to the key role played by financing and the increasing importance of technology. Moreover, the large business groups, involved in construction activities in both developed countries and developing economies, have used different strategies to consolidate their market dominance.

The 1980s has been considered the end of the era of the megaprojects. Also, it was a "lost decade" regarding the development process for the most part of the developing world. The sharp drop of investments on new construction projects and the contraction of expenditures related to the maintenance of the existing infrastructure during the last decade, especially in the highly-indebted countries, led to an extraordinary deterioration of the social and economic infrastructure in developing countries. In addition, the growing population and the urbanization process have increased further the imbalances with respect to basic human needs (housing, sanitation, water supply, hospitals, schools, and so on). In this regard, the present decade has an exceptional growth potential for the construction industry in developing

countries owing to either basic needs expenditures, or investments for economic reconstruction and modernization, or both.

Although developing countries account, nowadays, for the largest share of the international demand for construction services, it is worth emphasizing that the largest potential markets for international construction are found in the developed world. Indeed, this paradox results to a large extent from the ability of developed countries to restrict and control the access to their domestic markets of both foreign capital and labor. In historical terms, the "allowed" international transactions of construction services in developed countries have been, in general, confined to the international migration of building and civil engineering workers. On the demand side, the intervention of developed-country governments is related to the implementation of protectionist measures against the access to their domestic markets of contractors from developing countries. Furthermore, immigration laws and regulations in developed countries aim to change labor market structures, that is, to increase supply and reduce rigidities in low-skilled labor markets which affect the domestic construction industry. The specific negotiations on construction services will have to dealt with these problems.

Finally, while it is true that trade liberalization may be an instrument for increasing efficiency in the construction industry, it is even truer that building up a domestic capability in construction services in developing countries depends on appropriate solutions to structural problems, such as, mechanisms of technology transfer and the external debt crisis. These are also critical determinants of the increasing participation of developing countries in the world trade system.

Notes

(1) According to OTA (1987, p. 124), "many of the large engineering and construction firms offer both design and construction services".

(2) The data are not perfectly comparable. U.S. data refer to a benchmark survey carried out in 1987; see U.S. Department of Commerce (1989) pp. 130-131. The data for Brazil refer to a sample of large firms in 1977; see Goncalves (1983) p. 85.

(3) Most of the data on the world construction market is provided by the specialized publication "Engineering News Record". It refers to new contracts awarded to the top 250 international contractors; see the comments by OTA (1987) p. 132, footnote 14.

(4) These comments are based on the tabulations of the data from the Engineering News Record prepared by Lee and Walters (1989) p. 35 and UNCTC (1989) p. 13.

(5) During the period 1975-85, the average share of the Middle East in the total value of new contracts awarded to South Korean contractors was 90%; see Kim (1988) p. 227.

(6) An excellent analysis of the Brazilian exports of construction services during the 1970s is found in Ferraz Filho (1981). The political economy approach used in this study emphasizes the close relations between the large contractors and the Brazilian government.

(7) The conceptual and analytical framework of this section is based on the modern theory of the internationalization of production; see, for instance, Dunning (1981) and Caves (1982). For a recent and useful survey, see Cantwell (1988).

(8) A discussion of tied aid in the U.S. development assistance programme for Latin America in the late 1960s is found in Tendler (1975). Canada Government (1984) p. 30 and OTA (1987) p. 137 make some considerations on the implications of tied aid to the international construction industry.

(9) National studies submitted to GATT have been a major source of information regarding barriers to trade and government regulations (exports subsidies). Useful information is found, for instance, in Canada Government (1984) pp. 30-32 and U.S. Government (1984) pp. 198-202. See also Peat Marwick (1986) pp. 62-74.

(10) There has been a long discussion on the problems which arise in connection with the international migration of labor in the construction industry. Since 1946 the International Labour Organisation has a specific committee to deal with this subject. See, for instance, ILO (1959) and ILO (1977).

(11) Following the Canada-U.S. Free Trade Agreement, business visitors, traders, investors, professionals, and intra-company transferees are granted entry and are issued an employment authorisation; see Burn (1989) pp. 398-402.

(12) In 1986 resolutions of the Latin American Integration Agreement have granted preferential treatment for construction firms, but no protocols or agreements have yet been signed; see Abugattas (1989) p. 468. SELA (1990) p. 80 mentions a couple of examples related to the intention of forming binational or multinational construction firms in Latin America.

Table 1

Market Share of International Construction
(measured by new contracts awarded to the top 250 international contractors)
(Billions of dollars, and per cent share in brackets)

Country	*1980*	*1981*	*1982*	*1983*	*1984*	*1985*	*1986*	*1987*	*1988*
United States	48.3 (45)	48.8 (36)	44.9 (36)	29.4 (31)	30.1 (37)	28.2 (35)	22.6 (31)	18.1 (24)	25.9 (27)
France	8.1 (7)	12.1 (9)	11.4 (9)	10.0 (11)	5.4 (7)	6.7 (8)	7.1 (10)	8.6 (12)	11.1 (12)
Germany, Fed. Rep. of	8.6 (8)	9.9 (7)	9.5 (8)	5.4 (6)	4.8 (6)	5.4 (7)	5.5 (7)	5.9 (8)	8.1 (9)
Italy	6.2 (6)	9.3 (7)	7.8 (6)	7.2 (8)	7.8 (10)	8.7 (11)	7.4 (10)	9.2 (12)	13.3 (14)
United Kingdom	4.9 (5)	8.7 (6)	7.5 (6)	6.4 (7)	5.7 (7)	5.6 (7)	7.0 (9)	7.9 (11)	9.4 (10)
Other Europe	9.2 (8)	12.6 (9)	10.3 (8)	9.1 (10)	7.2 (9)	6.2 (8)	6.7 (9)	8.9 (12)	7.3 (8)
Japan	4.1 (4)	8.6 (6)	9.3 (8)	8.7 (9)	7.3 (9)	11.6 (14)	9.4 (13)	9.9 (13)	11.6 (12)
Rep. of Korea	9.5 (9)	13.9 (10)	13.8 (11)	10.4 (11)	6.8 (8)	4.8 (6)	2.6 (4)	2.1 (3)	1.4 (2)
All other countries	9.4 (9)	10.5 (8)	8.6 (7)	7.0 (7)	5.9 (7)	4.4 (5)	5.6 (8)	3.3 (4)	6.0 (6)
Total	108.3	134.4	123.1	93.6	80.5 [a]	81.6	73.9	73.9	94.1

Source: *Engineering News Record*, various issues, McGraw-Hill Inc.

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DM. La devaluación del marco respecto al dólar no compensó los efectos negativos del incremento del precio del petróleo y de la escasa competitividad, tanto en los mercados exteriores como interiores, de algunos sectores industriales como la ingeniería mecánica y electrónica. Finalmente, se registraron grandes dificultades de financiación, principalmente causadas por el diferencial de las tasas de interés en general en favor de otros países y sobre todo de los Estados Unidos.

Frente a tal situación, el principal objetivo de la política monetaria fue contrarrestar los crecientes riesgos de inestabilidad, tanto interna como externa.

La tradicional política restrictiva de las autoridades monetarias fijó un límite al aumento de la cantidad de moneda, que oscilaba entre el 5% y el 8% en 1980, y entre el 4% y el 7% en 1981. La diferencia de tres puntos porcentuales permitió una cierta flexibilidad frente a posibles variaciones en cuanto a las previsiones de inflación, al aumento de la actividad económica y al tipo de cambio del marco, permitiendo condiciones monetarias adecuadas para el crecimiento económico. Por otra parte, los efectos depresivos provocados por la salida de fondos hacia otros países facilitaron el logro de los objetivos de crecimiento monetario.

Por el contrario, desde 1977-1978 se asistió, en el campo fiscal, a una política ampliamente expansiva tanto a nivel central como a nivel regional (de Lander). Por ejemplo, en 1979 el déficit a nivel federal, regional y local alcanzó 47 millones de DM, y en 1980 llegó a 59 millones de DM.

En 1980, el incremento del gasto público fue del 9.5%, o sea 3.5 puntos porcentuales más de lo presupuestado. El desfase se debió a varias causas: el aumento de gastos de personal, el aumento del costo de la energía, el incremento de los subsidios de desempleo determinado por la contracción de la actividad económica, y las políticas de reducción de la carga fiscal adoptadas en 1980 (en 1980 el gasto público alcanzó el 48% del PIB contra un 39% en 1970).

Así, a principios de la década de los ochenta la economía alemana debió hacer frente a serios problemas, tanto de carácter coyuntural como de carácter