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MINERAL AGREEMENTS IN DEVELOPING COUNTRIES: STRUCTURES AND SUBSTANCE

By David N. Smith * *and Louis T. Wells, Jr.* **

Prologue

Despite the many dramatic developments that have occurred over the past half dozen years in relation to the production of natural resources in some areas of the third world, mineral production in most developing countries is still carried out through contractual arrangements between foreign firms and host country governments. The nationalization of the copper industry in Chile and the bauxite industry in Guyana, the spectacular successes of OPEC, and the completed or projected nationalizations of petroleum operations in a number of countries have taken center stage since 1969. Nevertheless, these developments are not typical of the vast majority of mineral arrangements in developing countries.

Most mineral contracts negotiated in recent years do, however, differ significantly from those of a decade or so earlier. In fact, many of those earlier agreements have been revised to reflect the standards of the more recent agreements. The hands of the developing countries have been strengthened in some instances through improved access to information from other producing countries as well as through the assistance of international organizations.

Changes in the structures of various industries as well as increased host country awareness of issues relating to sovereignty have affected various relationships. But improvements have been uneven. Contractual arrangements between developing countries and foreign companies reflect this fact. The way in which an individual agreement is shaped is influenced by relative bargaining strength (which itself is shaped by several factors, including the structure of the particular industry and the firm's role in that industry); the host country's concern with issues of sovereignty and control; and the information and negotiating skills which each party brings to the bargaining table. These factors influence both the form and the substance of the agreements.

Recent changes have generated a number of innovations in the structure of agreements. The principal purpose of this article is to explore some of these innovations and to suggest their relationship to the various substantive goals of the parties.

Analyses of the forms and substance of concession agreements, particularly outside the oil industry, have been rare. This fact is, no doubt, largely a result of the difficulty that any potential analyst has faced in

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gaining access to contracts. A number of scholars who wrote about concession-related problems in the 1940's, 1950's, and 1960's felt obliged to issue apologies for never having seen more than a handful of, usually dated, concession agreements.[1] Even now, significant collections of agreements are generally found only in the files of individuals who have served as consultants to developing countries.

INTRODUCTION

Arrangements between foreign investors and host countries for the development of natural resources have carried many names: "concession agreement," "economic development agreement," "service contract," "work contract," "joint venture contract," "production-sharing agreement," and, most recently, "participation agreement." Occasionally, within particular countries, the distinctions in terminology are significant in differentiating various forms of arrangements.[2] In other instances, varying terminologies relate to agreements of essentially the same nature.[3] In still other cases, the same terminology has been utilized in one country for agreements which are, in substance, quite different from each other.[4]

In many cases, the choices of terminology and form reflect political considerations. A developing country may find more acceptable over the long run an agreement characterized as a "work contract" which provides, as the Indonesian Kennecott Copper work contract did, that

> All mineral resources contained in the territories of the Republic of Indonesia . . . are the national wealth of the Indonesian nation (and

[1] *See*, for example, Hyde, *Economic Development Agreements*, 105 REC. DES COURS 272, 283 (I, 1962) (". . . practical difficulties of assembling primary source material."); Brudno, *Review of Considerations Arising in Foreign Oil Operations*, NINTH ANN. INSTITUTE ON OIL AND GAS LAW AND TAXATION 397 (1958) ("Information as to the details of existing concessions is sparse, and that as to the actual tax results of operating under these concessions is elusive."); Guldberg, *International Concessions, A Problem of International Economic Law*, 15 NORDISK TIDSSKRIFT FOR INTERNATIONAL RET 47, 50 (1944) (". . . [M]ost of the concession agreements which are reproduced here are of older concessions. This is due to the fact that concession agreements are nearly never published. They are jealously hidden. . . .")

[2] In Indonesia the "work contracts" for the development of hard minerals are quite different from the "production-sharing contracts" for the development of oil. *Compare, e.g.,* Contract of Work between the Republic of Indonesia and P. T. Kennecott Indonesia (Nov. 1, 1969) (for the development of copper) and Production-Sharing Contract between P.N. Pertamina and Phillips Petroleum Company (1968). Unless otherwise indicated, specific contracts are in the personal files of the authors.

[3] Many so-called "work contracts" are essentially the same as the traditional concession. The main distinction appears, in many cases, to be simply the minor issue of the point at which title to the mineral is vested in the foreign company.

[4] In the early 1960's in Indonesia a number of "work contracts" for the exploration and exploitation of oil were negotiated. They were essentially profit-sharing arrangements. *See, e.g.,* Contract of Work between P.N. Pertambangan Minjak Nasional and P.T. Stanvac Indonesia (1963). Reproduced in 3 ILM 243 (1964). The recent hard mineral "work contracts" provide for the imposition of a normal corporate income tax. *See* Contract of Work between Indonesia and P.T. Kennecott Indonesia, note 2 *supra.*

> that) Kennecott shall be, and hereby is appointed, the sole contractor for the Government with respect to the Contract Area,[5]

than it would an agreement characterized as a "concession agreement" which provides, as the Liberian Gewerkschaft Exploration Concession Agreement[6] did, that

> The Government . . . grants to the Concessionaire . . . the exclusive right and privilege to . . . exploit deposits of all kinds of ores. . . .[7]

Aside from the possible implications for calculating compensation in the case of nationalization,[8] the difference between the Liberian agreement and the Indonesian contract is largely one of terminology and of the point at which title to the resource passes to the investor. But choice of terminology may be crucial to a country's sense of sovereignty and control.

Contract provisions may differ substantially in terms of economic significance. The economic implications of agreements can be compared by projecting cash flows under alternative assumptions about the future and discounting these flows to a present value.[9] Yet, the political and psychological issues are, in most cases, of overriding importance in the selection of a particular form of agreement.

Although the terminology is often confusing and inconsistent, it is possible to discern regularities in the various forms of arrangements which accord with a host country's bargaining power and negotiating skills, differences in the structures of various industries, and the interests of the particular company. Within certain countries and within certain industries, one can observe the influence of changes in relative bargaining powers. The pattern is frequently a shift from traditional concession agreements in which the terms were primarily financial to forms in which the government reserves to itself substantial participation in and control over the venture.

An examination of the major types of agreements provides a framework for understanding some of the complex technical and strategic problems faced by both parties as well as some of the approaches commonly em-

[5] *Id.*, Preamble; *see also* Art. 1(a).

[6] Concession Agreement between the Republic of Liberia and the Gewerkschaft Exploration Company, Dusseldorf, West Germany (1958) in Chapter 33 of the Acts Approved by the Legislature of the Government of the Republic of Liberia during the 1958–59 Session.

[7] *Id.* Art. 1.

[8] These implications may, of course, be very important. On this issue, see 2 The Valuation of Nationalized Property in International Law at 78 and 111–12 (R. Lillich ed. 1973).

[9] This has been done by us for host governments and by others in unpublished materials. *See* E. G. Warner, Mixed International Joint Ventures in the Exploration, Development, and Production of Petroleum, June 1972 (unpublished M.S. thesis, Sloan School of M.I.T.); W. T. Levy Consultants Corp., N.Y., A Comparative Evaluation of Major Concessionary Arrangements Now in Effect, *cited* in Warner at 40, 60. *See also* T. R. Stauffer, Economics of Petroleum Taxation in the Eastern Hemisphere, a paper delivered at an OPEC seminar on International Oil and Energy Policies of the Producing and Consuming Countries (Vienna, June 30–July 5, 1969).

ployed to achieve accommodation to the political and financial needs of the parties. For analytical convenience, we have classified agreements under the following three rubrics: the Traditional Concession; the Modern Concession; and Production-Sharing, Service, and Work Contracts.

Mining Codes and Ad Hoc Agreements

The terms governing the relationships between a foreign investor in mineral development and the government of a developing country are usually set forth in ad hoc arrangements. Although mineral producing countries usually have general mining codes, foreign investment laws, and general income tax codes, these laws often allow government officials considerable latitude in shaping individual concession arrangements to fit the particular circumstances.

Many mining codes establish a general framework within which mineral contracts are negotiated. The 1971 Peruvian General Mining Law, for example, dealt with such basic problems as affirmation of state ownership of minerals, the granting of prospecting and exploration permits, the role of the state in mining operations, tax rates, the roles of various government agencies in granting and supervising concessions, and welfare and security of mine workers. The law also set forth detailed provisions relating to such subjects as causes for lapsing or revocation of a concession and fines to be imposed for certain transgressions.[10] These are matters which are set forth at length in some individual agreements, but which, aside from tax rates, seldom need special treatment. Their inclusion in a general mining code reduces the scope for bargaining, and standardization may make them easier for the host government to enforce. Moreover, their presence in the general laws tends to keep them from surfacing as terms to be modified if negotiations are reopened.

In petroleum, where governments have had considerable experience to draw upon and where many of the terms have become standard, less flexibility is evident in the negotiation of specific contracts than is typical of hard minerals. The Libyan Petroleum Law of 1955, for example, included a standard form of concession which was to be used for all oil concessionaires in the country. However, even for petroleum there are exceptions. The Indonesian Petroleum Law of 1960 (which governed oil contracts into

[10] Peru, General Mining Law: Decree Law No. 18880 (Lima: Ministry of Economics and Finance, Office of Public Relations, 1971). A number of countries legislated new mining codes in the first half of the 1970's. *See*, for example, Ecuador, Mining Development Law (Supreme Decree 101 of January 24, 1974), U.S. Dept. of Interior, Bureau of Mines, 71 Mineral Trade Notes, April 1974, at 7; Saudi Arabia, Mining Code 70 *id.*, June 1973, at 20; Sudan Mines and Quarries Act, 1972, *id.*, May 1973, at 15.

For general information on mining legislation, see UN ECAFE, *Proceedings of the Seminar on Mining Legislation and Administration* (Mineral Resource Development Ser. No. 34), UN Doc. E/CN.11/919 (1969) and UN ECAFE, *Proceedings of the Seminar on Petroleum Legislation with Particular Reference to Offshore Operations* (Mineral Resource Development Ser., No. 40), UN Doc. E/CN.11/1052 (1969).

the 1970's) nowhere specified the contents of petroleum contracts. Indeed, the production-sharing contract—the form of agreement used in Indonesia —was not mentioned in the 1960 law.

In general, ad hoc agreements for the exploitation of minerals in developing countries cover a wide range of issues, usually including such matters as taxation, import and export regulation, employment policy and conditions, management structure, exchange control, company and state rights and obligations, and infrastructure. Many concession agreements are an expression of virtually all the laws that will govern the company's operations in the country.

In the advanced countries one rarely finds comprehensive agreements of the type found in the developing nations. In the industrialized countries, the mining firms are usually subject to the general laws of the land; only a few narrow issues may be handled on a company-by-company basis.[11] But there are a number of reasons why most developing countries rely heavily on ad hoc arrangements: the special nature of the multinational company; the major role that the foreign extractive company typically plays in the general economic development of the country; and the legal tradition of the nation.

The multinational enterprise brings a bundle of problems that are usually inadequately covered by the legal system of the developing country. For example, company pricing among affiliated entities in different countries creates difficulties for tax and exchange control authorities. The income tax laws and exchange regulations in many developing countries were designed solely to govern locally owned business operations; they simply do not contain the principles and regulations required to handle transactions among affiliated companies. Most host countries have not had the need or the resources to draft general comprehensive mining, income tax, and company laws appropriate for regulating the multinational enterprise. Ad hoc arrangements provide a way of handling the problems.

The importance of mining activities in many developing countries provides an additional incentive for ad hoc arrangements. The operation of the foreign extractive enterprise frequently occupies a major role in national budgetary planning. In Zambia, for example, 46 percent of gross domestic product in 1969 was attributable to a few large mining firms. In Liberia, the income from four concession operations accounted for almost 65 percent of income tax revenue for 1968. In such a situation, general legislative approaches to govern the terms of mineral firms are not particularly attractive to government officials when a few agreements can be tailored directly to the circumstances.

In addition, the legal traditions of many host countries do not favor comprehensive codes. Rather, the tradition may be one of reliance on regulations and administrative decrees within a system in which general laws provide only broad guidelines. In some instances, the ad hoc concession

[11] For details, see OECD, The Exploration for and Exploitation of Crude Oil and Natural Gas in the OECD Area Including the Continental Shelf; Mining and Fiscal Legislation (1973).

agreement plays the role of a specific administrative regulation which elaborates a general law's policy directives.

It is not only the host government that may favor ad hoc agreements. Many foreign investors themselves seek such agreements to decrease the uncertainty of the investment. Unsure whether the political process in the host country is such that the general laws will develop in reasonable ways, investors turn to agreements the terms of which will be fixed over a long time period. The result is that investors seek greater guarantees of stability in developing countries than they would dare hope for in similar projects in advanced countries. In the late 1960's, for example, Australian and British investors negotiated an ad hoc arrangement in the Australian territory of Papua New Guinea (for the Bougainville copper project) even though the general laws in Papua New Guinea were similar to those of Australia, in which they already had operations. Although the Bougainville agreement did provide certain important tax advantages not available under the general laws, one of its principal features was to freeze the general tax provisions in their status at the time the agreement was reached. As a result, a few years later the company was operating under a more favorable tax regime in Papua New Guinea than it faced in Australia. Both governments had changed their taxation of mining operations. In Australia, the company was subject to the changes. In Papua New Guinea, the ad hoc agreement froze the tax levies applicable to the project.

A few developing countries have tried to avoid ad hoc contracts, but their success has been limited. Faced with a major investment, they usually revert to individual negotiations. The economic and political consequences are too important to be left to general laws that may not cover the situation adequately. Malaysia, for example, has long relied on general legislation to govern most of the conditions for small tin investments. When the prospects of a large copper development appeared in 1970, however, the government made sure that special negotiations were conducted, and that the federal government, not the state government (as in the case of tin), represented the nation.

Although successful efforts to abandon entirely arrangements that are tailored to a particular enterprise have been limited, in most countries the investor has been subject to general laws which govern a progressively wider area of activities. The host government may specify in its general legislation the tax regime, labor laws, and other terms to govern investment in a particular sector. This trend may be reinforced as foreign investors increasingly recognize that ad hoc arrangements do not provide the long term guarantee that they purport to give. The general legislation may, in practice, give more certainty than ad hoc contracts that purport to be binding for 15 or more years, but which in reality are changed as bargaining powers shift. In fact, by 1975 in a few countries the only area of significant bargaining concerned equity participation. With most of the terms fixed by law, including tax provisions, participation in ownership becomes the principal vehicle for the parties to strike a bargain that reflects their relative bargaining powers.

The Traditional Concession

The agreements between foreign companies and host governments in the first half of the century were generally recorded in simple documents in which the concessionaire was given almost unrestricted rights in exploiting one or more natural resources. Typically, the concessionaire was granted extensive rights over a very large land area, often much larger than an investor could be expected to develop within a reasonable time period.[12] The period of the contract was usually very long: in many, the terms were to run for 50 or 60 years or more.[13]

Royalties as the Initial Basis for Calculating Financial Obligations

The financial (and other) obligations imposed on investors in those early days were generally limited. Contracts which were negotiated from the turn of the century through the 1940's normally required the concessionaires to make payments based on the number of physical units of output or on the value of output from particular mines. Although these royalty payments accounted for by far the greatest portion of government revenues from the concession, a nominal land tax was also usually imposed on the area under the concessionaire's control.[14]

Many of the earliest concession agreements called for royalties based on volume of output, rather than on value. Oil agreements illustrate the pattern. From 1900 to 1950 most oil concessions relied on the payment of royalties based on the tonnage of crude oil produced. A few attempts to collect income taxes were made early in the history of oil concessions but they were abortive. The 1920 agreement between the Persian Government and the Anglo-Persian Oil Co. called for an income tax on the worldwide income of the enterprise, excluding only profits arising from transportation of the oil.[15] The experiment was premature and short lived. The contracting parties reverted to royalty arrangements. The Iraqi agreement with the Khanaqin Oil Company in 1926 provides a more typical example of an oil contract of that era. It called for payment of four gold shillings

[12] In describing a 1906 concession grant by the Congo Comité Special du Katanga to the Union Minière du Haut-Katanga, two commentators wrote that "the Company's rights were so extensive as to partake of quasigovernmental powers akin to those accorded the great trading companies of an earlier concession era." Wetter and Schwebel, *Some Little Known Cases on Concessions,* 40 Brit. Y.B. of Int. Law 193 (1964). Fifty years ago the United Fruit Company owned or leased about 5,000 square miles of tropical lands, using only about 10% productively at the time. Fox, *United Fruit and Latin America,* 4 Harvard Rev. 32, 33 (No. 4, 1968).

[13] The lease given to the Firestone Company by the Liberian Government in 1926 was to run for 99 years and covered one million acres of land. *See* W. C. Taylor, The Firestone Operations in Liberia xi (Washington: National Planning Association, 1956).

[14] *See* the various land taxes listed in Ghana, *Report of The Commission of Enquiry into Concessions* 32–79 (Accra-Tema: Ministry of Information, 1961).

[15] H. Cattan, The Evolution of Oil Concessions in the Middle East and North Africa 8 (1967).

per ton of net crude oil produced and saved.[16] In another case, the 1949 agreement between the Saudi Arabian Government and Getty Oil provided for a royalty of U.S. $0.55 per barrel.[17]

Iron ore, timber, and even plantation agreements in developing countries followed patterns similar to that of oil. The original (1945) agreement between the Government of Liberia and the Liberian Mining Company, Ltd. (LMC) provided for a basic royalty of five cents per ton on all iron ore shipped.[18] Timber agreements, in the same pattern, normally called for a "stumpage fee" based on certain units of output.[19] And the United Fruit Company paid one cent per stem for bananas harvested in its fields.[20]

Many later agreements in such industries abandoned the fixed cash royalties in favor of royalties based on a percentage of the export price of the resource.[21] The LMC agreement in Liberia combined the fixed payment per unit of ore with a royalty that was based on the value of the ore. It provided that if, in any year, the average price of pig iron were to be more than one hundred and fifteen percent of the average price of pig iron for the prior ten years, an additional royalty was to be paid by the producing firm.[22] Similarly, timber and plantation arrangements have become more complex in many countries.[23]

Compared to income tax arrangements, profit-sharing contracts, and production-sharing agreements of more recent vintage, these early concession agreements have two distinct advantages for the host government. First, the royalty payment is a particularly easy type of levy to administer. To collect a tax based on units of output, the government need only have a physical count of the volume of production or shipments made by the concessionaire. Secondly, the royalty seems to guarantee a certain payment to the government for the depleted resources irrespective of the company's profits and the world market price for the resource. As long as there is production or sales, the government should receive revenue. This feature has its attractions to a government worried about the stability of its revenues.

In spite of the advantages of royalty arrangements, it was a rare concession agreement by the late 1960's that relied entirely on royalties as the source of payment to the host government. There were indeed some agreements, such as that governing Le Nickel in New Caledonia, which

[16] *Id.* at 33.

[17] *Id.* at 34.

[18] Concession Agreement between the Government of Liberia and Liberian Mining Company, Ltd. (Aug. 27, 1945), Art. 9(a); Approved by an Act of the Legislature January 22, 1946.

[19] *See*, Ghana, *Report* . . . , *supra* note 14, at 32ff.

[20] M. Wilkins, The Maturing of Multinational Enterprise 127 (1974).

[21] The Ghana Commission of Enquiry into Concessions concluded in 1961 that "all mineral and timber royalties should [henceforth] be required by law to be computed on a percentage of the sales price. . . ." Ghana, *Report* . . . , *supra* note 14, at 10.

[22] *See* note 18 *supra*.

[23] For an example of a stumpage fee adjusted in accordance with the wholesale price of standard newsprint, see the Agreement between the Province of Newfoundland and Newfoundland Pulp and Chemical Co., Ltd. (July 5, 1960), Sec. 14.

still depended on royalties in 1974. However, the major disadvantages of royalties had led to a dramatic increase in the importance of other kinds of levies.

Increasing Importance of Income Taxation

By the 1950's the concept of taxation of concession income had gained general acceptance in the arrangements between oil companies and their host governments. The levy on income was implemented either through a direct income tax, frequently at a rate of 50 percent, or through a "sharing of profits" arranged in a way that made it roughly equivalent to an income tax.[24]

The shift from royalty to income tax in oil is well illustrated by the figures for Venezuela. The following table shows that the portion of government revenue accounted for by income tax increased dramatically, at the expense of royalties, during the post World War II period.

PERCENTAGE OF VENEZUELAN GOV'T REVENUES FROM FOREIGN PETROLEUM FIRMS THAT CAME FROM VARIOUS LEVIES

Year	Royalty	Income Tax	Surface Tax	Customs	Other	Total
1938–1940	58.9%	0.0%	15.7%	21.7%	3.7%	100%
1941–1945	60.0	7.5	13.4	16.2	2.9	100
1946–1950	54.9	30.7	3.5	7.7	3.2	100
1951–1955	54.5	34.3	2.1	4.4	4.7	100
1956–1960	52.8	40.7	1.1	2.4	2.9	100
1961–1965	50.0	46.7	0.5	0.6	2.3	100

Source: Georg K. Gabriel, *The Gains to the Local Economy from the Foreign Owned Primary Export Industry: The Case of Oil in Venezuela* 92 (unpublished D.B.A. thesis, Harvard Business School, May 1967).

More slowly the same kind of evolution has occurred in other extractive industries.

In oil, hard minerals, timber, and plantations, the shift from royalty to income tax has taken place in two ways: first, existing agreements have been amended, either to substitute income taxation for royalty payments or to supplement royalties with levies on income; second, new agreements negotiated in the 1950's and later have incorporated income tax or profit-sharing principles as the primary source of government revenue.

The Liberian Mining Company Agreement (LMC), one of our previous examples of a royalty-based agreement, illustrates the changes that have taken place. That arrangement has moved from one relying on royalty to one relying on income taxation as the source of government revenue. The original agreement, providing for a fixed basic royalty and a supplementary royalty based on price, was changed by a 1952 collateral agreement, in which LMC agreed to the government's "participation in profits" after a certain point.[25] Participation was to begin when LMC had liquidated its debts and had brought its "recovery of investment" to four million dollars, or by 1957, whichever came first. For the first five years from that date,

[24] *See* CATTAN, *supra* note 15, at 44.

[25] *See* note 18 *supra.*

the government was to receive 25 percent of profits. During the next ten years, it was to receive 35 percent of profits. Thereafter, it was to receive 50 percent of profits.[26] The income tax was to supplement the royalty payments which would continue. In 1965 the basic agreement was further amended to provide that the 50 percent participation rate would take effect as of January 1, 1965, and that participation was to be in lieu of royalty payments.[27]

Although in most agreements income tax became the principal source of revenue, royalties by no means disappeared. Even with an income tax, royalties could serve the purpose of assuring the government of a minimum payment for the extraction of the resources when low prices led to little or no profits. For example, the structure of the Indonesian Kennecott agreement in West Irian in the early 1970's guaranteed that the government would receive a royalty of 3.6 percent on copper even if low prices were to lead to low taxable profits. Across the border in Papua New Guinea, the higher income tax rates of the Bougainville arrangement promised the government more when profits were high, but the low royalty rate could leave the government in an unfavorable position should profits turn out to be low.

In governments with federal systems, royalties have sometimes been retained as a payment to states or provinces, with the income tax going to the federal government.[28] In some cases, a royalty that is progressive with the prices of the mineral has been designed to capture for the government a substantial portion of the "windfall" profits when prices are high. Malaya, and later Malaysia, for example, had complex royalties for tin that were designed for this purpose. In 1973, a similar royalty was being proposed in British Columbia to apply to all mining in that province of Canada.

The imposition of income taxes has resulted in a significant increase in the burden on the administrative capacity of host governments. To assess income tax, governments must be able to verify the sales prices of the resource and the calculation of deductions for expenses that are charged against gross income.[29] In many cases the transactions that led to the income or expenses have been with entities affiliated with the foreign investor. In those cases, the firm might use prices that are not those of arm's length transactions or it might utilize other techniques to shift profits from one tax jurisdiction to another. The administrative machinery of many host countries would simply have been unable to deal with these problems in the first half of this century. Most governments were still struggling to obtain adequate administrative capability in the mid-1970's.

[26] *See* Collateral Agreement of March 12, 1952, approved by an Act of the Legislature March 10, 1953.

[27] Amendatory and Tax Agreement dated as of January 1, 1965 between the Government of the Republic of Liberia and Liberian Mining Co., Ltd., Clause 1.

[28] This is the case in Malaysia and Canada, for example.

[29] An exception to this is the situation where, as has been the case in petroleum, a posted price is used.

The administrative problems that result from the shift to income taxes have been recognized repeatedly. In a study undertaken in the mid-1950's, for example, the difficulty in income tax administration was mentioned explicitly as a major reason for retaining the per-unit stumpage fee for timber concessions in Ghana.[30] In the early 1970's, one government consultant recommended royalties as the only tax for the proposed Asahan Smelter in Sumatra, in recognition of the administrative problems Indonesia would have with an income tax on an operation involving primarily transactions among affiliated companies. In 1974 an official from Guyana claimed that Reynolds had so set its transfer prices that it had never shown a profit on bauxite mined in that country. The tax on income had produced no revenue beyond a minimum sum that applied no matter what profits were reported.[31]

With the difficulties involved in the administration of income tax arrangements, it is little wonder that many governments have been disappointed initially in their receipts from the tax. In one case, we calculated that inability (or unwillingness) to administer properly the complex tax provisions of an agreement was costing the host government at least 35 percent of what seemed to be due under the terms of the arrangement.

The shift away from royalties to some form of income taxation has, however, been based on a realistic perception of the level of payments that the host government can collect under the two types of levy. One problem concerns the "floor" on payments that the royalty is supposed to provide. Although the per-unit royalty purports to guarantee the government a minimum level of income on its resources, in practice royalties have from time to time not been collected from companies that were not profitable. This has been the case for Zambian copper and for Malaysian tin, for example. Another difficulty has been in the level of revenue that could be collected. In practice, royalties have seldom represented a significant portion of actual company profits. Clearly, firms have been reluctant to take on heavy royalties. From the company's point of view, a commitment to a large royalty, particularly in the early years of an extractive operation, is potentially dangerous. At the outset, the firm faces a great deal of uncertainty whether it will be able to extract the natural resource profitably. The cost of the royalty represents to the firm an additional cost of extraction, one that will be incurred whether the project is profitable or not. On the other hand, a commitment to pay an income tax on profits if they do materialize appears less risky. If there are no profits, the company has no obligation to pay tax to the host government. Under a pure income tax arrangement, the firm incurs significant obligations only if profits are high. With a desire to avoid risk, the foreign firms have usually been willing to agree to an income tax that, if the expected level of profits results, would be larger than any payments that would be agreeable under a royalty arrangement.

Although royalties had generally declined in importance by the early 1970's, the pace of decline was uneven. Indeed, it was not certain that the

[30] Ghana, *Report . . .* , *supra* note 14, at 10.

[31] Private interview.

days of royalty were numbered. In the case of oil, tax arrangements had reverted to something similar to royalty arrangements. The posted price had become the basis of calculation of profits in most agreements and this price itself had become a subject of negotiation. In those countries where the expenses that could be deducted in calculating income tax were limited to a percentage of the value of the output, the income tax became, essentially, a large royalty if expenses exceeded the stated limit. This effective royalty appeared to be short lived. Late in 1973, the move was again in the other direction as oil-producing countries began to tie the posted price to the market price plus an increment. By 1975, changes were placing the oil companies more in the position of service contractors than in the role of tax or royalty payers.

In an oligopolistic industry such as oil, large royalties could be tolerable for the companies. Periodic falls in price were hardly the threat that they represented in, say, copper. Thus, profit levels seemed to be more predictable for the producing companies. Moreover, the form which the effective royalty took enabled it to qualify as an income tax for tax credits in the home countries of the oil firms. Where profits are predictable and where the royalty generates tax credits, the ease of administration provided by royalty arrangements can make them an attractive form of levy.

Other Changes

The general shift from royalties to income taxation as the primary source of government revenue was probably the most significant change in the early development of concession agreements. But there were many other changes. The later agreements usually included a number of terms that were designed to bring benefits other than revenue to the host country.

Generally, the host government considered it important to introduce into the agreements, or into the general laws of the country, provisions that were designed to promote "linkages" between the extractive operation and the rest of the economy. As host countries perceived the possibilities of using the foreign firm more fully to promote local development, they sought ways to influence the actions of the firm.

Requirements that the project purchase goods of local manufacture and requirements that the company hire and train local citizens were incorporated in a large number of arrangements. A number of agreements also required the foreign company to guarantee access for local users to such infrastructure as roads, railroads, and communications systems. Provisions were made for the concessionaire to build and operate schools, hospitals, and other services for the company's local workers. The foreign firm was sometimes encouraged or required to contribute funds and talent to local community development or to educational, agricultural, or technical institutions.

At the same time, rudiments of general labor and mining codes appeared, either in the agreements or in the general laws of the host country. Ad hoc agreements or the mining laws would specify such matters as the minimum grades of ore that must be mined and the quality of timber that

must be harvested. Safety and pollution standards were introduced, though frequently in vague language and with little provision for enforcement.

In addition, the terms of agreements typically gave some attention to the rights of third parties. These included, for example, the rights of local residents to payment for land that was taken for the concession and to access to traditional timber sources, agricultural land, water sources, and sacred sites.

The Advantages of the Traditional Concession

With modifications in taxation and linkage provisions, the traditional form of concession agreement has survived into the 1970's in many countries and for many industries. The original Bougainville agreement and some of the concessions for hard minerals negotiated in Indonesia in the late 1960's were, for example, similar in format and substance to hard mineral agreements negotiated elsewhere in the 1940's and 1950's.

There is much to be said for the traditional form of concession. The agreements are often less complicated and may therefore be easier to administer than some of the newer forms of agreements. The income tax provisions, if well conceived and well drafted, can be relatively straightforward. A country with a weak income tax administration or without a sophisticated governmental body to police an agreement might well prefer a traditional agreement, which raises minimal administrative problems, to one which is so complex that the governmental machinery simply cannot cope with its administration. Government income might well be higher when complex, though purportedly more favorable, financial arrangements are avoided.[32]

Nevertheless, many developing countries have been under pressure to break away from the traditional form of agreement. The pressure has usually been: (1) for increased government participation in the ownership of the enterprise; and (2) for an increased governmental role in the management of the extractive operation. The result has been agreements that differ significantly in structure from the traditional concession arrangements. In most cases, they have been more complex.

THE MODERN CONCESSION

Equity Sharing

In the late 1960's and early 1970's, there was a rapid increase in the number of agreements that provided for some local participation in the ownership of the firm that extracts raw materials. Major participation has usually meant ownership of shares by the host government. The most publicized cases of participation were in petroleum. In the major oil-producing nations, negotiations in the early 1970's led to agreements under which government participation in a number of operating companies was

[32] *See* Wedderspoon, *Simplifying Taxes in East Africa,* 6 FINANCE AND DEVELOPMENT 51 (1969).

scheduled to reach 51 percent by 1983. This timetable has already been accelerated in a number of countries. Although public awareness of participation was created by oil in the 1970's, the trend had started earlier and was not limited to petroleum.

Equity sharing, or "participation," may or may not bring the government an effective voice in management decisions within the operating company and may or may not mean that the government plays an active role in other activities leading to the ultimate disposal of the resource. The concept of participation as it has been developed in the oil industry has been characterized as "pseudoparticipation," since it does not assume that the host country produces or sells the oil, or transfers it downstream for refining and sale. Rather, participation has been criticized by one observer simply as "an ingenious way of further increasing the tax per barrel without touching either posted prices or nominal tax rates."[33] But ownership itself has political appeal to governments, even when actual participation in management may be minimal. Many mechanisms have been devised to bring about the political benefits of joint ownership.

One form of equity-sharing agreement is that in which the government obtains equity interest without a financial contribution, but in exchange for all or part of its right to levy an income tax. The economic advantages to the host country of such an arrangement are not always self-evident. Some government negotiators have believed that an exchange of the right to impose, say, a 50 percent income tax for 50 percent of the equity is an even exchange. It often is not. In general, holding 50 percent of the equity is, in purely financial terms, less attractive to the government than is an income tax at a 50 percent rate. Under the ownership arrangement, the government receives half the dividend payments. But half the dividend payments is usually less than half of the taxable profits of an enterprise. Dividends come out of the funds that remain after the repayment of principal on debt and after the provision of funds out of profits for reinvestment in the on-going operation. Under a normal equity-sharing arrangement, the government shares in capital expenditures; under a tax arrangement, the government takes its funds before the deduction of such expenditures. In rare cases, however, net cash flow from which dividends are paid may be greater than taxable profits.

As an illustration of the problem, consider the Liberian American Company (LAMCO) agreement of 1960. As a co-owner of the Swedish interest in the LAMCO-Bethlehem Steel joint venture, the government was to receive, as dividend payments, half of the annual dividends accruing from the Swedish interest.[34] The dividends were to be in lieu of royalties and income tax. Because of the low ratio of equity to loan capital, a substantial

[33] Adelman, *Is the Oil Shortage Real?*, 9 FOR. POL. 69, 84 (Winter 1972–73).

[34] Joint Venture Agreement between the Liberian American Mining Co. and Bethlehem Steel (April 28, 1960). Chapter LXV of Acts Passed by the Legislature of the Republic of Liberia During the Session 1959–1960. For a detailed discussion of the financial structure of the LAMCO Joint Venture, see R. W. CLOWER, *et al.*, GROWTH WITHOUT DEVELOPMENT: AN ECONOMIC SURVEY OF LIBERIA 210 ff. (1966).

amount of the funds generated (estimated to be about $15 million a year for the first ten years of production)[35] was to go to the repayment of debt and interest.[36] While under a normal taxing arrangement the government would receive, through taxes, a portion of the profits calculated before the repayment of debt, under the equity-sharing arrangement the government shared in "profits" calculated after repayment of debt was deducted. Although there could have been a higher rate of participation that would have been equivalent, over time, to the surrendered taxes, the equity-sharing arrangement at 50/50 did not benefit the government to the extent that taxes at 50 percent would have.

Actually, the LAMCO arrangements were even less favorable to the government than has been suggested. Two other factors affected the "profits" in which the government was to share: the Export-Import Bank, as a condition of its loan, required that $25 million in profits be set aside by 1970 in a special reserve; and there were to be deductions from gross profit for "equipment replacement" (at a rate of about $0.30 per ton) in addition to what was to be allowed for depreciation. These items were to be deducted from the company "profits" in which the government was to share. Under the usual taxing arrangement, these items would not have been deductible in the calculation of net taxable income. The result was that the Liberian Government paid for a substantial part of the company's capital facilities out of "forgone" dividends.

Reinvestment of profits by the mining enterprise may, of course, mean larger payments out of earnings sometime in the future. But if reinvestment promises adequate returns, the foreign company would probably provide all of the funds, in the absence of government participation, leaving the government with its increased future revenues from taxes in any case.

The exchange of some rights to tax for equity may, of course, make political and economic sense. In fact, that exchange is explicit in many of the equity-sharing agreements, even where some income tax remains. Much more unusual is the case where the government has paid for its share of equity at the price paid by other stockholders and, at the same time, has given up its right to tax profits. The Liberian-National Iron Ore Co. Agreement of 1958 may be a unique example.[37] The financial con-

[35] CLOWER, *supra* note 34, at 219.

[36] Analysis suggests that much of the loan capital might better have been characterized as equity rather than debt. In such a case "interest" payments would be treated as "dividend" payments and would not be deductible from gross income for tax purposes. This problem is discussed in detail in Chapter 3 of our forthcoming book.

[37] Concession Agreement between the Government of the Republic of Liberia and the National Iron Ore Company, Ltd. (March 13, 1958). Art. 7 reads:

> Since the Government presently owns, or has the right to acquire, one-half of the shares of the Concessionaire to be issued, the Government forever waives all royalty. . . . In lieu of all other Liberian taxes . . . the Concessionaire shall pay an exploitation tax and a surface tax.

In commenting on the NIOC arrangement, an economic survey team has observed that "the government's equity participation in the National Iron Ore Company is extremely costly. It has invested $5 million as a stockholder, just half of the total equity

sequences of this agreement were so disadvantageous to the government that the most charitable interpretation must be that the issue was not clearly understood by the government negotiators.

A common pattern in more recent equity-sharing agreements has been for the government to "buy" shares of equity and to retain all its rights to tax corporate profits. In the vast majority of cases, the government contribution has been made only after the existence of a commercially viable source has been proved, that is, after a significant portion of the uncertainty has been eliminated. Two agreements, (1) the 1970 nickel contract between the Government of Colombia and Chevron Petroleum Company and the Hanna Mining Company and (2) the 1967 Bougainville Copper Agreement provide examples of this type of arrangement.[38] The Colombian Government, through its wholly owned Instituto de Fomento Industrial (IFI), entered into a joint venture with the Hanna Mining Company. The government retained the right to tax both the joint venture and any profits accruing to Hanna Mining from its Colombian operations. Similarly, Papua New Guinea bought equity in the Bougainville mine while imposing a gradually rising rate of income tax.

To share in ownership, the host government may obtain an interest in a contractual joint venture, rather than holding shares in an incorporated entity. In 1965, the National Iranian Oil Company, for example, provided 50 percent of the capital in a partnership for offshore oil, with the other half invested by a consortium of foreign firms. In this arrangement, the government retained its right to tax.

When a shift is made in a particular project from a traditional arrangement to one that provides for sharing of ownership, the steps may be complex and confusing. An illustration is the Chilean Government's purchase in 1969 of shares in Kennecott's subsidiary. In the change, the government acquired 51 percent of the shares in the copper mining operation, but the taxing arrangements were revised considerably at the same time. In fact, the result of the combined changes appeared to be that the burden on the company of taxation and dividends paid to the government remained approximately the same after the new arrangement as before.[39]

The Zambian Government's takeover of 51 percent of the shares in its copper operations in 1969 had much in common with the Chilean change. Shares were purchased on the basis of book value and paid for with 5 percent government bonds. At the same time, there was a major re-

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capital. As a 50 percent stockholder, it will get 50 percent of net (distributed) profits, *the other shareholders paying zero income taxes on their 50 percent of net profits.*" CLOWER note 34 *supra.*

[38] Agreement between Instituto de Fomento Industrial and Compañia de Niquel Colombiano, S.A. (July, 1970). *See Colombia Mine Accord Regarded as Pace-Setter,* N.Y. Times, Aug. 15, 1970, at 31. The Bougainville Agreement was ratified in 1967. *See* Territory of Papua and New Guinea, Mining (Bougainville Copper Agreement) (Ordinance 1967). The Agreement was amended in 1974 (*See* Mining (Bougainville Copper Agreement) (Amendment) Bill 1974.)

[39] Private interviews.

vision of the tax arrangement, thought by some observers to favor the foreign companies.[40]

There are a number of technical problems that should be dealt with in the negotiation of equity-sharing arrangements. Two important ones relate to the rights of one partner to purchase shares offered by another and the method by which any expansion of the project will be financed. In Zambia, the copper agreements assured the government of rights to acquire shares that a minority shareholder wished to sell. In that agreement, funds for expansion were to be provided pro rata by all equity holders.

There are many variations on the equity-sharing theme. An interesting arrangement between the Libyan National Oil Company and Shell Exploration (Libya) Ltd. combined some of the features of ownership sharing with those of production sharing. That agreement provided for a changing division of interest in the project. The national company's share began at 25 percent and remained at that level until production reached 260,000 barrels per day; it was to increase to 50 percent when output reached 500,000 barrels per day. Exploration expenses were to be borne by Shell, which also advanced the state company's share of capital for development and funds needed for operating expenses. The state company was to reimburse Shell for these advances out of the state company's share of production.[41]

Arrangements that allow workers rights of participation could also be considered as variations of equity sharing. The Peruvian General Mining Law of 1971 provided that mining companies were to deduct, free of taxes, ten percent of their net income, four percent as "liquid participation" for Peruvian workers, and six percent for "property participation" by Peruvian workers.[42] The four percent was to go to a workers' cooperative and the six percent was to be invested as shares in the company held by the workers. Once the workers had shares they would be guaranteed one representative on the Board of Directors. Workers' representation on the board thereafter was to be in proportion to equity ownership.

Still rare in the mid-1970's was direct equity sharing between governments, although state companies from developed countries had fairly frequently participated in the exploitation of a developing country's minerals. In early 1973 Guinea had under consideration the creation of two mixed companies to develop the iron ore deposits of Mount Nimba and Mount Simandou near the Liberian frontier. The two companies were to include capital from Guinea, Liberia, Algeria, Nigeria, and Zaire as well as from companies from Japan, Yugoslavia, and Spain. One motivating factor for including Liberia was to link the Guinea operation to the 250 km. railway

[40] Harvey, *Tax Reform in the Mining Industry*, in M. Bostock and C. Harvey (eds.), Economic Independence and Zambian Copper: A Case Study of Foreign Investment 131 (1972).

[41] OECD, Oil: The Present Situation and Future Prospects 91 (1973).

[42] Peru, General Mining Law, Art. 281ff, note 10 *supra*.

which ran from the LAMCO iron ore operation on the Liberian side of Mt. Nimba to a Liberian port.[43] Nigeria decided in 1974 to take a five percent interest in two iron ore companies in Guinea with an apparent view to establishing a Nigerian iron and steel industry, which would stimulate demand for coking coal which Nigeria has in some abundance.[44]

While a general trend toward some variant of increased government participation in the equity of mining enterprises was evident in the early 1970's, some countries have had second thoughts as they approached the issue, especially as the risks became apparent. The Government of Sierra Leone had, in 1969, stated its intentions of taking a 51 percent share in four major mining companies operating in the country. Interest in equity participation was apparently inspired by events in Zambia where the government had taken shares in copper operations. In 1973, however, the Sierra Leone Government, claiming that it did not have sufficient liquid assets, gave up plans to take an equity interest in one of the companies, Sierra Leone Development Company. The prospects for high profits were dim. Although the company was apparently willing to sell shares below book value, the equity participation plan was replaced with an agreement providing for higher taxes and for government representation on the board of directors.[45]

The success of governments in Latin America and Central Africa in obtaining equity in copper operations influenced still other countries. In 1972, the Government of Papua New Guinea passed a resolution in its House of Assembly announcing its goal of substantial equity participation in mining operations in the country. However, when it was faced with a renegotiation of the Bougainville arrangements in 1974, the government decided not to push for greater equity participation. Torn between the apparently conflicting advice of the plethora of advisors that the government called upon, it simply delayed action for months as the various government factions made their views known. In the end, it ignored the calls for more ownership than it already had and simply increased the taxes.

In spite of the problems associated with equity participation, it will almost certainly continue to grow in importance. In countries where taxes are fixed by the general laws, shared ownership provides a way of rearranging the financial benefits on an ad hoc basis to reflect bargaining powers. And mere ownership is often considered an attractive goal.

Management control

Governments often acquire equity for other than purely financial reasons, or for the satisfaction that ownership itself provides. It is often assumed that more ownership gives more control. Increased control over the operations of the foreign firm, either real or imaginary, promises political bene-

[43] *Sekou Touré's Iron Mountains*, WEST AFRICA, Feb. 19, 1973, at 239. *But see Big Bauxite Mine Begins*, *id.*, March 26, 1973, at 421.

[44] *Interest in Nigerian Coal Grows*, *id.*, May 6, 1974, at 535.

[45] *Opting Out of Iron Ore*, *id.*, March 5, 1973, at 303, April 30, 1973, at 577.

fits in addition to the possible financial ones.[46] The extent of the government's share of control may be in proportion to its share of equity ownership. However, in many instances, as we have indicated, it is not.

One device for dissociating equity ownership from control is the assignment of different classes of shares to the different parties. One class of shares may have no voting rights. In some cases, holders of a particular class of shares may be empowered to appoint a certain number of members of the board of directors and those of another class may be entitled to another number, regardless of the claims on the assets of the enterprise represented by the shares. The 1960 LAMCO agreement in Liberia is one example of this kind of arrangement. Although each shareholder had 50 percent of the equity, the holder of Class A shares, the Government of Liberia, could appoint only five members of the board of directors. The holders of Class B shares could appoint six.

The arrangements for control do not, of course, always favor the foreign firm. In a given situation a government may have sufficient bargaining power to insist on a voice in management beyond that represented by its stockholdings. In some cases, a government's class of shares may carry certain rights, but more commonly the agreement itself simply specifies the right of the government to name a certain portion, say 50 percent, of the directors on the operation's board. Moreover, it has not been uncommon in modern concessions for the government to have a veto right over certain kinds of decisions, regardless of the size of its shareholdings. A common mechanism for granting the veto has been a requirement that a unanimous vote of the board of directors be obtained before certain steps can be taken by the management. The presence of at least one government-appointed director can enable the government to block a decision.

Most host governments have chosen not to become involved in the day-to-day operations of the firm. To make sure that decisions of importance reach the board, however, some governments have insisted that a general operating plan be submitted by the line management for the approval of the board. The agreement spells out the contents of the operating plan: usually production volumes, major investments, sales plans, operating budgets, and employment plans. The line management is required to operate within this plan or to seek approval from the board for any departures. In such cases, the government and the company are usually pleased to keep the government out of day-to-day operations, while assuring the government the right to review important decisions.

Perhaps the two central problems faced by a government in structuring its representation on a board of directors of an extractive operation have

[46] It has been suggested that despite the management control provisions in its production-sharing oil agreements, Indonesia's highly touted state oil company, Pertamina, actually exercises little real management control over foreign operations. ROBERT FABRIKANT, OIL DISCOVERY AND TECHNICAL CHANGE IN SOUTHEAST ASIA—LEGAL ASPECTS OF PRODUCTION SHARING CONTRACTS IN THE INDONESIAN PETROLEUM INDUSTRY at 21 ff. (Singapore: Institute of Southeast Asian Studies, 1973. Field Report Ser. No. 3.)

been: (1) defining those issues in which it is vitally concerned and (2) assuring that its representatives on the board have the necessary technical data to make intelligent decisions on matters before the board. The Colombian nickel agreement with Chevron and Hanna Mining Company, mentioned above, illustrates one approach to the solution of these problems. During the negotiations with the foreign company, the Colombian Government made a careful appraisal to determine which decision areas were of special concern to the government in its role as a minority partner in the venture and as a sovereign power. It determined that in many areas the interests of the foreign firm and the government would probably coincide. Each party would be interested, for example, in purchasing goods, services, technical assistance, and "know-how" at minimum prices, so long as the suppliers were not parties affiliated to the foreign investor. The Colombian Government would have little need for veto power over such matters. On the other hand, the government was able to define certain classes of decisions in which the interests of the majority and minority parties to the joint venture might diverge or in which national interests might differ from those of the enterprise. These classes of decisions included:

(1) the purchase or sale of goods, services, technical assistance, or "know-how" from or to a partner or an affiliate of the major shareholder;
(2) the appointment of a management group and the terms of a management contract;
(3) the approval of the annual exploration, development, investment, production, and budget plans to govern operations under the management contract;
(4) the approval of purchases by the operator that represent expenditures over certain amounts;
(5) the geographical location of facilities;
(6) the appointment of an auditor for the books of the joint venture and the approval of financial statements;
(7) the contents of any annual reports of the joint venture operations;
(8) the mortgaging of any assets of the joint venture;
(9) the purchase or sale of goods, services, etc., to or from nations unfriendly to Colombia; and
(10) the use of technology harmful to the environment.

For decisions of these types, government consent was required.

After spelling out the areas of concern, the government negotiators were worried that their representatives would not be sufficiently well informed to make intelligent decisions in all these matters. To help overcome the difficulties, the government made provision in the agreement for the creation of a technical committee, composed primarily of Colombians, the main task of which would be to assure: (a) that adequate training of Colombians would take place, (b) that the government would be apprised of any past or future decisions by the operator which would affect its interests, and (c) that technical information and analysis would be provided

to the government representatives on the board of directors so that they would have an adequate basis for participation on the board.

This approach has its parallel in the United States, where the idea of providing and financing an autonomous staff of technical specialists to assist "outside" directors in making decisions has been put forward. The proposal has come as a response to the increasing recognition that outside board members have rarely been equipped to make complex management decisions or to exercise effective control over day-to-day managment.[47] A technical committee promises possible help.

In the Colombian case, the government was the holder of a minority interest. Under the increasingly common arrangements whereby the host government owns the majority of shares, the problems can be reversed. The task is then to provide protection for the foreign company as the minority stockholder.

In Zambia, where the government held 51 percent of the shares in a particular copper concession, the private interests were granted the right to veto expansion plans or appropriations for capital, exploration, or prospecting expenditures. An agreement in Sierra Leone provides another example of minority interests in the hands of the foreign firm. Under a renegotiated agreement with the Sierra Leone Selection Trust, Ltd.,[48] a new company was formed with the capital held 51 percent by the government and 49 percent by SLST. The board of the new company was to consist of eleven directors of whom six (including the chairman) would be appointed by the government. All the operating assets of the old company were to be acquired by the new joint company which would carry on the diamond mining. The government agreed to pay for its proportion of the fixed assets of the business by issuing negotiable bonds and to pay for its share of the net current assets in cash. The joint company was to be taxed on its profits at a rate of 70 percent. The foreign firm was to appoint the first managers to carry on the day-to-day operations of the company.

The agreement had provisions for the protection of the foreign firm, as minority shareholder, as well as guarantees for the government. For the security of the private firm, an affirmative vote of three-fourths of all the directors was required for:

(1) the termination of the operations of the joint company or the sale or transfer of the assets or rights of the joint company;

(2) the issue of additional shares, the borrowing of funds, the creation of charges, the making of loans, or the giving of guarantees;

(3) the appointment or removal of the auditors of the joint company;

[47] Arthur J. Goldberg, *Debate on Outside Directors,* N.Y. Times, Oct. 29, 1972, §3, at 1. *See also* Levy, *How an Audit Committee Can Help,* N.Y. Times, Dec. 3, 1972, §3, at 16; Townsend, *Let's Install Public Directors,* BUSINESS AND SOC. REV., at 69–70 (1972).

[48] For a full statement of the terms of the new agreement, see Consolidated African Selection Trust Ltd., Report to Members on Agreement with the Government of Sierra Leone, Sept. 11, 1970.

(4) any purchase or sale of any product or assets or any other transaction carried out otherwise than on the best commercial terms reasonably available or in the normal commercial activities of the joint company;

(5) any restriction on the effective implementation of agreements with the government;

(6) the expenditure by the joint company of any funds or the making of any commitments in respect of any new mining operation or facility or the making of any expenditure, considered by at least three directors to be outside the ordinary course of business; and

(7) the appointment of any committee, board, or attorney whose powers included the doing of certain acts.

Many government officials think that equity-sharing arrangements, such as in the Colombian and Sierra Leone cases, can help in reducing some of the political problems associated with foreign activities in the minerals field. The promise, and sometimes practice, of increased control in the hands of the government at least provides politically useful evidence that the government is concerned about national sovereignty. Participation in management, where it actually occurs, may provide experience that hastens the day when the host country is able to operate its mines without the direct involvement of foreign firms.

Management Contracts

Under equity-sharing arrangements or in a situation where the foreign company's shares have been nationalized, the government may want to return the foreign firm to the day-to-day management of the operating company's activities. The usual device for this is the management contract.

Zambia provides an example of the use of a management contract under shared ownership. Part of the terms of the 1969 agreement between the Government of Zambia and Roan Selection Trust (RST), under which the government was to acquire 51 percent equity interest in RST's subsidiary operating in Zambia, included provision for separate management and consultancy contracts.[49] RST was to provide: (1) technical services (including preparing progress reports, long-term plan reports, capital expenditure estimates, advice on operating problems); (2) general services (including advice on the preparation of company reports and financial statements and on the development and processing of minerals); and (3) specialized services (including engineering consultancy services, staff, recruitment).

Under the management contract RST was to be remunerated in the amount of 0.75 percent of the state operating company's gross sales proceeds. In addition it would receive two percent of the operating company's consolidated profits after certain deductions. RST would also receive an engineering fee of three percent of specified construction costs of

[49] These contracts are described in some detail in M. BOSTOCK AND C. HARVEY, *supra* note 40, at 229

projects and a recruiting fee of 15 percent of the total emoluments payable to expatriate employees during their first year.

Under a separate sales and marketing contract RST was to receive 0.75 percent of the gross sales proceeds of all sales of copper metal throughout the world and 2.5 percent on cobalt sales.

Copper mining in the Congo illustrates the possibilities for using management contracts after a complete nationalization. In 1967 the Congo (now Zaire) Government took over the Belgian-owned Union Minière du Haut Katanga, without compensation. In 1969, however, the government and the Belgian firm reached agreement on compensation and on an arrangement under which the company would provide management assistance on a fee basis.

No standard terms have developed for management contracts. In some, remuneration has been based on sales volume and expenses incurred. Others have turned to a share of profits, with a hope that the managing firm would have an incentive to increase efficiency. Whatever the basis of compensation, the interest of foreign firms in management contracts has generally been limited, unless they have had some equity ownership or another form of access to a significant portion of profits. In most cases where management contracts have been successful, the foreign firm has had a clear and strong interest in the success of the operation. Where the firm's downstream operations depend on inputs from the project it is managing, the conditions may be met.[50] In any case, experience suggests that the host government can face tough administrative problems even with management contracts. For example, there have been numerous cases where the managing enterprise has siphoned profits out of the project managed under contract through purchases from affiliates of materials at prices far above those that would be available elsewhere.

PRODUCTION-SHARING, SERVICE, AND WORK CONTRACTS

Some agreements have gone beyond the modern concession format in which the foreign firm holds equity in the facilities. Under some arrangements, the government simply purchases the services of a foreign enterprise which has no ownership interest in the producing company. Service contracts, work contracts, and production-sharing arrangements provide examples of agreements that are sometimes close to this structure.

Some of the most confusing terminology surrounds these three "types" of agreement. In the early 1970's such arrangements were still, as one commentator observed earlier with regard to service contracts, "too new and too few to have developed any very pronounced standardization in name, form, or substance." [51]

[50] For a discussion of management contracts, see P. GABRIEL, THE INTERNATIONAL TRANSFER OF CORPORATE SKILLS: MANAGEMENT CONTRACTS IN LESS DEVELOPED COUNTRIES (1967).

[51] E. Murphy, Jr., *Oil Operations in Latin America: The Scope for Private Investment,* 2 INT. LAWYER 455, 471 (1968).

In theory, under all three arrangements the foreign firm is a "contractor," not a concession holder or partner. The investor is a "hired technician" rather than the operator of a subsoil interest. In practice, the line between the conventional concession contract on the one hand and a service, work, or production-sharing contract on the other has been less than sharp. And the boundaries dividing service contracts, work contracts, and production-sharing agreements from each other have often been very blurred indeed.

Service and Work Contracts

Perhaps the most basic content of service and work contracts is illustrated by mineral agreements in Indonesia, negotiated between 1966 and 1973, for copper, nickel, and tin operations. Indonesia adopted the terminology of "work contract" for these arrangements. The essential feature of the contract has been that the title to the ore remained with the government until it was extracted. In other respects, however, the Indonesian work contracts were quite similar to the traditional concession and quite dissimilar to the "service contracts" of the Middle East. For example, the Indonesian "contractor" simply paid a corporate income tax, although sometimes at special rates, on his profits from the sale of the ore.[52] And the ownership of the mining facilities was unambiguously vested in the hands of the foreign firm.

Clearly, more has usually been implied in the terminology of service and work contracts than was evident in the case of the Indonesian agreements for hard minerals. Passing of title is usually, in practice, not much more than a legal nicety.[53] In fact, if no more is meant, many of the traditional concessions in Hispanic law countries would technically qualify, since according to that legal tradition the title to ore bodies resides automatically in the state, although many concession documents in those countries have carefully skirted the issue of title.

The use of the terms service or work contracts usually implies a rather different relationship from that which is understood under typical concession agreements. The foreign firm is considered to be working as a contractor in some sense for the host government. The foreigner's services may be paid for in cash or kind. His remuneration could be based on an annual fixed fee, but he generally receives reimbursement for actual costs plus a payment based on profits.

The 1966 agreement between the National Iranian Oil Company (NIOC) and the French state agency, Enterprise de Réchèrches et d'Activités Petrolières (ERAP) and ERAP's subsidiary, Société Françaises de Petroles d'Iran (SOFIRAN), provides a typical model of what is usually understood as a service or work contract. The agreement avoided words of direct grant and described ERAP and SOFIRAN as "contractors." ERAP agreed to provide the risk capital for the exploration and its subsidiary

[52] *See, for example,* Contract of Work between Indonesia and Freeport Indonesia, Inc. (April 7, 1967), Art. 5.

[53] *But see* note 8, *supra.*

agreed to provide the technical "know-how" and services and to serve as a general contractor. The oil produced was to belong to NIOC, an essential point of the agreement, but sale to ERAP of a percentage of the oil produced was guaranteed at an agreed price. ERAP also agreed to act as a broker and to sell certain quantities of crude oil on behalf of NIOC on the world market. Funds advanced by ERAP for exploration and development were to be repaid after oil was produced in commercial quantities.[54]

As in the ERAP case, most arrangements have called for the foreign firm to bear the risk of exploration. Some agreements have treated development expenditures as an interest bearing loan from the foreign firm to the government which could be repaid in cash or kind. In other arrangements, the company would bear these expenditures entirely on its own account. The only commitment to the company would be that, as contractor, it was guaranteed a certain amount of the production which would have to cover costs and profits.

Arrangements in Bolivia were similar to the NIOC-ERAP agreement, but the terminology was rather different. Under the 1972 Bolivian general law relating to hydrocarbons, Yacimientos Petroliferos Fiscales Bolivianos (Y.P.F.B.), the Bolivian state oil enterprise, was authorized to enter into "operation contracts."[55] Under these agreements, the contractor would initially bear all the costs and risks of exploration and exploitation, but would eventually be compensated for expenses incurred during the exploitation phase should oil be found. All hydrocarbons produced by the operator were to be delivered to Y.P.F.B. Y.P.F.B. retained, at wellhead prices, the volumes necessary for paying national and departmental taxes. Part of the balance was retained by Y.P.F.B. and a portion was to be delivered to the contractor.

The 1972 Bolivian law made provision for "petroleum service contracts" as well as "operation contracts." These "petroleum service contracts" were of a very special nature: they could be entered into by either Y.P.F.B. or an operation contractor to engage a third party to perform a specialized task such as marketing, transport, or refining.

Venezuela also has negotiated agreements that are labelled "service contracts," but with a rather different meaning from Bolivia's "petroleum service contracts." A petroleum service contract for oil in South Lake Maracaibo between Corporacion Venezuela de Petroleo and Shell provides an example. Under this arrangement, the financing was to be provided by Shell, the contractor. After a three-year period, a formula came into operation which would require the contractor to surrender a part of the contract area that is likely to have oil. In the operating period, the contractor would retain 90 percent of the oil, with the remainder going to

[54] Cattan, *Present Trends in Middle Eastern Oil Concessions and Agreements*, in PRIVATE INVESTORS ABROAD—PROBLEMS AND SOLUTIONS IN INTERNATIONAL BUSINESS IN 1969, at 140 ff (Cameron ed. 1969); also OECD, OIL . . . , *supra* note 41, at 92 ff.

[55] Bolivia: General Laws of Hydrocarbons, 69 MINERAL TRADE NOTES, Nov. 1972, at 14 ff.

the state corporation. Shell would pay to the government a royalty of 16⅔ percent and an income tax of 60 percent, based on a kind of posted price. The state firm would receive five percent of the royalty going to the government and a portion of Shell's after-tax profit varying from zero to 55 percent when the net profits were more than US $0.50 per barrel.[56]

As with equity sharing arrangements, the amount of supervision exercised by the government, or a state enterprise, over a contractor has varied from case to case. In many situations government control has been more theoretical than actual. In other cases it has been very real. The problems facing the government that has granted a service contract are akin to those faced by government directors on the board of directors of a venture in which the government shares equity ownership. Without assistance, perhaps from a "technical committee" of the type attempted in the Colombia-Hanna Chevron agreement mentioned above, government representation may generate little influence over decisionmaking.

Actual agreements have differed with regard to the mechanism through which the government is to participate in management. The 1972 Bolivian general law relating to hydrocarbons provided, in the case of an "operation contract," for a "control committee" composed of representatives of Y.P.F.B. That committee was to approve all budgets, programs of work, and methods of operation, and perform audits, among other things. The Venezuelan agreement with Shell provided for joint operating committees. In addition, the state firm had the possibility of exercising influence by taking up an option to purchase 20 percent of the equity in the contracting firm.

Production-Sharing Agreements

Along with service contracts, production-sharing agreements have become popular. The term "production-sharing" agreement could, perhaps, be reserved for arrangements whereby the foreign firm and the government share the output of the operation in predetermind proportions. In practice, the term has been applied to almost any kind of arrangement whereby there is at least an option that the firm and the government receive their benefits in kind rather than in cash. The distinction between service contracts and production-sharing contracts had become one of small technicalities as they had evolved by 1975.

Perhaps the purest examples of production-sharing agreements were the so-called "co-production" agreements that had been negotiated for manufacturing by Western firms in the Communist countries of Eastern Europe. Typically, the Western firm provided licenses, machinery, and technical assistance. In payment, it agreed to accept a certain amount of the product of the firm.

For raw materials in the developing countries, the agreements have generally been more complex, partly as a result of the fact that the foreign investor has contributed more than simply technical know-how and partly because of the greater risk that is usually involved. A number of petro-

[56] OECD, OIL . . . , *supra* note 41, at 92.

leum agreements negotiated in Indonesia illustrate "production-sharing" arrangements for raw materials. These agreements are of two distinct types: those reached under the Sukarno regime between 1960 and 1965, and those that emerged in the early Suharto period.

In the years 1960–65, most foreign-owned enterprises in Indonesia were taken over by the government. At the same time, however, the government negotiated a number of "production-sharing" agreements, primarily with the Japanese.[57] Production-sharing was characterized "as the preferred form of foreign investment."[58] The basic theory behind these agreements was that they called for "redeemable fixed interest loans"[59] by the foreign company to the government. The loan would be repaid by the government within a stipulated time in the form of an agreed percentage of the product of the project. Under these arrangements, the foreign investor was generally regarded as a creditor, rather than as a partner or contractor, even though he was responsible for certain services. Principal, interest, and remuneration for technical and marketing cooperation were to be paid to the firm only with a percentage of the annual product valued at world prices. The Indonesians negotiated such production-sharing agreements for timber, oil, nickel, and a number of other commodities.

The change of government in 1965 brought with it corresponding changes in the form of production-sharing contracts. The new agreements bore only superficial resemblance to the production-sharing agreements of the 1960–65 period or to traditional concession contracts. These contracts were negotiated only for petroleum exploration and development; the government adopted different forms of contract for other minerals and for timber.

By early 1971 some 36 foreign companies had negotiated the new style agreements with Pertamina, the state oil company. These agreements were entered into by small and medium-sized firms, as well as by such large international enterprises as Shell, Compagnie Française de Petroles, Gulf, BP, and Mobil.[60]

Under these arrangements, the foreign companies were "contractors" to Pertamina. Although the terms of the various oil contracts varied in some particulars, the production-sharing contract between P.N. Pertambangan Minjak Nasional (Pertamina) and Phillips Petroleum Company (1968) may be considered typical of the genre. Under the terms of the agreement, Pertamina was responsible for the "management of the operations." Phillips was made responsible to Pertamina for the "execution of operations" and provided all financial and technical assistance required for the

[57] For a full discussion of the agreements negotiated during this period, see Gibson, *Production-Sharing*, 2 Bull. of Indonesian Economic Studies, Feb. 1966, at 52 ff. (Part I) and June 1966, at 75 ff (Part II).

[58] *Id.* pt. I, at 52.

[59] *Id.* pt. I, at 52–54.

[60] Hunter, *Oil Developments*, 7 Bull. of Indonesian Economic Studies, March 1971, at 98. For a thoughtful analysis of post-Sukarno production-sharing contracts, see R. Fabrikant, note 46 *supra*.

operations. Phillips carried the risk of "operating" costs (which included the costs of exploration and development) and was required to market all of the crude oil produced, if Pertamina so required.

The two key elements of the agreement that distinguish it from the simple "service contract" are that: (1) Phillips was entitled to recover, in the form of oil, operating costs up to an amount equal to 40 percent per calendar year of crude oil produced and (2) of the balance of oil, Pertamina took 65 percent and Phillips received 35 percent. While it was provided that "Phillips shall be subject to the income tax laws of the Republic of Indonesia and shall comply with the requirements of such laws," Pertamina undertook to pay such taxes on behalf of Phillips. Title to Phillips' portion of oil (including the portion to be sold to recover operating costs) passed to Phillips at the point of export. Title to equipment purchased (not leased) by Phillips was vested in Pertamina when the equipment was landed in Indonesia.

Two important pricing provisions were included in the contract. All sales to third parties were to be valued at net realized prices f.o.b. field terminal received by Phillips unless Pertamina found a more favorable market, in which case this market price was to be used. Sales to affiliates were to be valued by using "the weighted average per unit net price f.o.b. field terminal received by Phillips for sales to Third Parties during the preceding three (3) calendar months." [61] Any commissions paid to affiliates in connection with sales to third parties were not to exceed the "customary and prevailing rate."

The pricing provisions gave important protection to the government against the firm's underpricing of oil sold to affiliates. In addition, the fact that Pertamina had the option of taking its share in oil rather than money provided further protection. If the government was not satisfied with the price of sales to affiliates (or to nonaffiliates), it could take payment in crude oil and attempt to sell it to a higher bidder.

In a production-sharing arrangement such as the Pertamina-Phillips Petroleum agreement, the host government must be concerned not only with sales to affiliates. The costs of operations, although limited to 40 percent, must be calculated to determine the amount of oil that goes to each party. The problem was somewhat greater than in the earlier agreements which provided only for the repayment of a predetermined "debt." Slippage in the amount of income accruing to the government could occur in the calculation of these "operating costs" incurred by the company under post-1965 agreements. Such deductions must be given the quality of scrutiny that would be given by a government tax office to deductions from gross income in a traditional concession agreement.

Several production-sharing agreements negotiated in Indonesia after the Phillips Petroleum contract added a new provision requiring the contractor to offer a stated percentage of his "contractual rights and obligations" to

[61] "Affiliate" is defined in Section I, subsect. 1.2.14. It is noteworthy that the earlier (1966) Production-Sharing Contract between P.N. Pertambangan Minjak Nasional and Kyushu Oil Co., Ltd. makes no reference to affiliates.

an Indonesian participant as soon as commercial sales were made.[62] Depending on the particular contract, the local participants could be either individuals, corporations, or state entities. Typically, the portion required to be offered to Indonesian participants was either five or ten percent.

It is not surprising that most of the production-sharing agreements have been in the oil industry. For the arrangements to be of significant benefit to the host country, the government must be able to sell domestically or on foreign markets a share of the output of the extractive operation. This has been possible for oil as was effectively demonstrated in 1973, as oil-producing countries made the most of their "participation oil." For many other minerals, sales of large quantities on spot markets can not be arranged so smoothly.

The government must depend on the foreign firm to sell to affiliates and to arrange long-term sales contracts with other firms in the industry. In fact, even oil agreements usually make some provision for the company to take the government's share of the oil. At times, the cost to the company can be high. In August 1973, Occidental had to buy back Libya's share at $4.90 per barrel, a price that appeared at the time to be high, at 32¢ above the posted price.[63] Soon thereafter, the price structure had changed in such a way that most producing countries were selling on the open market some of the participation oil that had previously been sold through the companies' marketing channels.

There have been signs that the changes in structure of other minerals industries may increase the attractiveness of production-sharing in those industries. The nationalizations of copper operations in the late 1960's and early 1970's have shown that host countries can sell their own copper.[64] With more open markets the production-sharing model may have something to offer governments. For example, the 1970 OMRD Ecuadorian copper agreement called for the government to take its royalty payments in the form of ore, if it so chose.[65] Some other industries show similar possibilities. A 1974 agreement between Niger, Continental Oil Co. and CEA, the French Atomic Energy Commission, gives the government the right to market its share of uranium produced.[66]

[62] *See* the Arco contract of August 9, 1971 and the Indonesian Offshore contract of March 3, 1972, for example. Both are reproduced in R. FABRIKANT, OIL DISCOVERY AND TECHNICAL CHANGE IN SOUTHEAST ASIA—THE INDONESIAN PETROLEUM INDUSTRY: MISCELLANEOUS SOURCE MATERIAL (Singapore: Institute of Southeast Asian Studies, 1973. Field Report Ser. No. 4).

[63] Smith, *Libya Intensifies Oil Restrictions*, N.Y. Times, Aug. 14, 1973, at 43.

[64] *See* R. Vernon, SOVEREIGNTY AT BAY: THE MULTINATIONAL SPREAD OF U.S. ENTERPRISE 41–43 (1971). The ability of Chile to sell copper was, of course, subject to attempts by the companies whose properties were nationalized to block sales of Chilean copper shipments through court action.

[65] In mid-1973 Ecuador signed a new agreement with Texas-Gulf Consortium providing for the right of Ecuador to purchase up to 51% of the company's total production for its own merchanidising. *See New Oil Contract Signed by Ecuador and Consortium*, N.Y. Times, Aug. 8, 1973, at 47.

[66] *Uranium—Niger*, 71 MINERAL TRADE NOTES, May 1974, at 12.

THE FUTURE OF THE NEW STRUCTURES

The 1960's brought major innovations in the forms of mineral agreements. Most important, the new structures have broken the tight link between ownership, control, and financial risks and benefits that was inherent in the traditional concession. Arrangements have been negotiated which have repackaged these elements in ways that were not feasible under the old structures.

Because ownership and control have become important political symbols in most developing countries, new contractual forms have been created to allow greater freedom in allocating ownership, control, and financial risks and benefits in ways that satisfy both the new political and economic imperatives. Where a foreign firm is considered important for its financial, technological, or marketing contributions, the new structures permit the negotiation of agreements that allocate control and financial benefits in ways that reflect the bargaining powers of the parties. Ownership can be allocated in a way that makes the presence of the foreign firm politically acceptable in the host country.[67]

In some cases, ownership has had symbolic or real meaning for the foreign firm as well as for the host government. In many cases, extractive firms have resisted arrangements that would leave them with less nominal ownership than that to which they have become accustomed, even though the financial and control aspects of the proposed agreements might be perfectly satisfactory. In some cases, the problems facing the private managers considering innovative arrangements have been real. They have worried about how to explain the new structures to shareholders, how to set up insurance against expropriation and other risks on assets which they do not own, or how to raise loans on property to which they do not have title. In many cases, however, resistance from management seems to have been based less on economic and legal grounds than on the symbolic meaning of ownership.

Increasingly, managers have recognized that financial benefits—their principal objective—need not be completely linked with control. And control need not be linked at all with ownership.

The new forms of agreement will almost certainly spread to a number of industries where they have not been common. In some cases, the new arrangements will not generate significant shifts in the allocation of finan-

[67] For a strong argument in favor of wide use of service and management contracts, see T. H. MORAN, THE IMPACT OF U.S. DIRECT INVESTMENT ON LATIN-AMERICAN RELATIONS (prepared for the Commission on U.S.—Latin-American Relations, Washington, June 1974). An interesting study of minerals investment in Australia found a strong relationship between the benefits to Australia and the bargaining variables discussed in the first Chapter of our forthcoming book. However, ownership appeared to be unrelated to the determinants of bargaining power. Apparently, Australia had not attached great significance to equity holdings, but had concentrated on the economic returns. *See* R. McKern, Multinational Enterprise and Natural Resources: A Study of Foreign Direct Investment in the Australian Minerals Industry, Feb. 1972 (unpublished doctoral dissertation, Harvard Business School).

cial benefits. But in industries in which bargaining powers continue to shift in favor of the host country and where host country negotiating skills are sufficient, the changes will be more than political. There will be real changes in who controls the operations and who receives the financial benefits from the projects.

Yet, while the new forms of agreement have provided ways of sharing symbolic power and economic benefits in ways that the traditional concession could not, they have not eliminated the complex technical problems relating to the allocation of financial benefits and financial risks. The technical issues remain no matter what the structure of the agreement.

It appears that many of the innovations for minerals typically governed by traditional arrangements come from firms which have had experience in other industries. Petroleum firms, in their efforts to diversify, are expressing a willingness to transfer the structures of petroleum agreements to hard mineral operations such as copper. They have learned that some of the ways of repackaging ownership, control, and financial issues are feasible and acceptable to management. The concept of "ownership" has lost some of its significance for managers of companies that have had experience with arrangements in which the company has had sufficient control over critical decisions and has received attractive financial benefits with little direct claim to ownership.