

TNC - STATE RELATIONS AND NEGOTIATIONS:

FISCAL AND FINANCIAL ISSUES

(with special reference to Namibia)

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TNC - STATE RELATIONS AND NEGOTIATIONS:
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Part One: An introductory Survey

1. This paper is intended to pose some of the fiscal and financial issues which are relevant to determining state policy in respect to, and negotiations with, TNCs. It is not a comprehensive guide to all such issues nor does it cover in any depth the broader range of topics beyond fiscal and financial relevant to state - TNC relationships.
2. Examples cited are in large part chosen from Southern African experience to increase their relevance to the context likely to be faced by Namibia on independence. However, neither the particular issues in any one case, the situation at any one time or the context of any one country (or TNC) are ever replicated exactly so that carbon copies of some other solution - however satisfactory in its own terms - are unlikely to prove either feasible or desirable.

Why States Want TNCs

3. In simple terms a state will want a TNC to establish or expand its activities within the state's territory if the TNC's operations will help to achieve a public objective which could not be achieved in its absence or could only be achieved less competently or at a much higher cost. Public objective in this sense means an objective significant to some group to which the state's decision takers are responsible or responsive. Who such groups are will vary with the nature of the state.
4. Among the most likely objectives are tax revenue, exports, profits for domestic partners (state or private) and supplies, knowledge (including technology), personpower development. Why a

TNC may be necessary or useful to achieving these ends depends on the specific case. It may be able to spread or accept risk whereas the state could not, eg the serious survey and exploration of the Etosha Basin's hydrocarbon potential may well cost over \$250 million before commercial deposits are proven to exist or to be absent. For TNCs with explorations in many areas the wins and losses even out, for Namibia it is a much nearer to a flip of the coin gamble. Cost may be beyond national capacity to raise; eg the Langer Heinrich uranium/uranium oxide project may well cost over \$1,500 million to complete. A TNC may be the only practicable source of management and professional expertise. eg it is fairly easy to build or acquire commercial bank premises but quite another matter to train or recruit personnel to run a bank effectively - especially if many of them, at least initially, need to be expatriates. Technology may be held almost totally by a few TNCs. eg if the Oranjemund delta natural gas is to be brought to shore and turned into ammonia-urea a series of complex technologies must be used, and used properly. Most of those possessing this knowledge and ability to use it are TNCs.

5. Clearly, TNCs are not the only possible ways around the constraints listed. In each case there may be other ways to spread risk, raise external finance, train or hire personnel, procure knowledge. Even if a TNC is needed, it may be practicable to enter into a contractual relationship not involving majority - or even any - TNC participation in ownership. However, in some cases, even when alternatives are canvassed, TNCs will emerge as either the only realistic alternative or the least costly/most efficient one from the state's point of view.
6. However, that a TNC is needed at one point in time does not mean that it will be needed forever. One goal of negotiation should be to build in increases in national capacity to supply those elements whose initial absence made the TNCs presence critical. Clearly such built in "fade out" is no goal of TNC's so that achieving and enforcing such arrangements is usually an area of considerable tension.

7. A point relating both to alternatives and to change over time is that of "opportunity cost" or priorities and sequences. A state with limited senior citizen personnel, fully trusted expatriate professionals, institutional capacity, knowledge and finance cannot do everything it wishes to do immediately. Dispersing its resources too thinly may result in near total lack of success in any direction. Therefore, it may wish to concentrate them on a limited number of key activities (including enterprises) and consolidate these while building up resources to expand its role over time. Thus, in 1977 when Tanzania nationalized a wide range of enterprises it concentrated citizen personnel and direct operating attention on two sectors - finance and sisal. The remainder were initially handled via management contracts. Over time, as experience and personnel available grew, these were gradually phased out so that virtually none remain today.

What TNCs Want

8. TNC goals can be summed up under three headings: survival, profitability and expansion. Evidently the three are interrelated. Without survival, there will be no profits. Without opportunities for new profitable investment (expansion), the TNC will not be very well regarded by investors or managers. However, there are also tradeoffs: very high short term profits based on low wages and transfer pricing to hide the true profits from the state may imperil medium term survival and - once that TNC establishes a reputation for such policies - limit the number of countries which will welcome new investment by it. A rational TNC balances all three goals - it does not seek to maximize one to the exclusion of the others.

9. However, what is true for a TNC as a whole need not apply to each of its units. In particular, TNC logic requires that expansion be in the potentially most profitable (and survivable) opportunities which often implies moving profits out of the country where they are earned. This is particularly true of

mining companies. Equally the survival and profitability of the group may be enhanced by abandoning (or selling) a subsidiary with poor profit prospects or life expectancy. However, it remains true that TNCs will not establish new enterprises unless they can reasonably expect substantial profits relative to assets at risk and a fair certainty that the enterprise can survive long enough to earn them. Similarly in renegotiation the preservation of at least part of an existing profit flow and the creation of a new context in which survival for a substantial period is assured is normally a TNC's primary concern.

10. This is not to say that TNCs pay no attention to national and international social, legal and political contexts. They certainly do, because ignoring them creates risks to survival, profitability of existing ventures and acceptability of new or expanded operations. TNCs seem to vary markedly on how sensitive they are to such contextual issues and on how long a time horizon they operate.
11. However, TNCs response to such contexts does not relate to "equity" or "good citizenship" being any part of their own logic or "corporate morality". It flows directly from the fact that the concepts of morality, equity and "acceptable corporate behaviour" that exist in individual countries and internationally do, in part, determine what it is necessary and/or prudent to do to ensure survival, profitability and expansion.
12. TNCs do - in varying degrees - have standards of business ethics. It is too cynical to say these are simply what they think they can "get away with" although that often seems to be a substantial component. One other component is certainty - contracts and other arrangements based on outright lies, bribes or intent to default on basic obligations do give rise to uncertainty. Therefore, beyond a certain point TNCs usually prefer to avoid such practices (and certainly to ensure that nobody practises on them). However, in negotiating with weak, badly informed states TNCs frequently do make use of bribes, suppression of information and use of language suggesting that they are promising more than

they actually are. Faith in business morality is usually a very weak tool in negotiations unless one has the knowledge and negotiating skill to make it clear that adhering to fairly strict standards is clearly good business.

Fiscal and Financial Issues

13. The primary fiscal/financial issue is how to divide up the total surplus (or operating profit) of the enterprise. This is ultimately a question first of shares and second of devising methods of division which do not radically reduce the total to be divided. Thus one objection to high mineral royalties is that by deterring exploitation of low grade ores they ultimately reduce total profit and, therefore, reduce the TNC's share by more than they increase the state's (and in extreme cases may reduce the total state take). For this purpose the overall result is usually much more important than the particular tax and ownership means used to achieve it.
14. However, profit share is not purely a matter of state receipts. A high wage and salary policy reduces TNC receipts (and government direct revenue) to the advantage of a particular group of citizens. Similarly tight exchange control on remittance of fees and dividends will significantly reduce the real value of profits to a TNC which wants to use them to pay dividends to its own shareholders or to invest outside the country in which the profits are earned.
15. Further, there are "side benefits" beyond direct enterprise surpluses. For a country these may include employment, markets for local products, provision of multi-purpose infrastructure, foreign exchange earnings, etc. They may also accrue to a TNC. For example de Beers basic interest in Williamson's Diamonds (Tanzania) is not really its profit share, but is maintaining the Central Selling Organisation's role in marketing the output. And Otjihase mine was worth more to Tsumeb than to any other owner because Tsumeb could make a profit smelting Otjihase ore, a

point of no value to any other owner. It is worth identifying "side benefits" when engaged in negotiation or renegotiation. Indeed, at times, it may be worth trading off direct fiscal and financial gains for side benefits if it is possible to ensure that the latter will be provided.

16. The inverse of "side benefits" are "related costs". The most common one is infrastructure that TNCs insist the government provide. In the case of substantial infrastructure required primarily for a specific enterprise, it is critical to treat its fiscal/financial cost as an offset to the gains from the enterprise proper. It is also critical to ensure that such infrastructural investment can in cases like water and power sell its products to the enterprise at commercially viable rates. A blatant example of failure to ensure this is the power supply contract between Ghana and Valco (an aluminium smelter basically owned by Kaiser) whose rate, set over 20 years ago with no provision for adjustment, is now grossly uneconomic.

Negotiation and Renegotiation: Purposes and Constraints

17. Negotiation is a process intended to determine whether an agreement meeting each party's minimum requirements can be reached. It tends - unless several TNCs are competing for the same involvement and the state has unusually good access to information plus analytical and negotiating talent - to be a situation in which, objectively, the TNC is at an advantage.
18. The purpose of negotiation from the state side is to secure its minimum targets (including fiscal and financial ones) and as much more as is consistent with the TNC (or some alternative partner) coming in at all. An agreement which does not achieve the minimum (and they are not unknown) is, in fact, a more perverse result than a breakdown of negotiations.
19. Renegotiation is somewhat - though far from totally - different. It may be provided for in the initial arrangements with the TNC. There is indeed much to be said for periodic renegotiations especially when very substantial uncertainties as to the level and timing of future profits are unavoidable at the time of the initial negotiations. It may also arise from a contextual change neither party anticipated, eg in the mid-1970s Shell/BP insisted on renegotiating their joint venture agreement with Tanzania because the cost of 90 days interest free credit on crude and product imports had risen explosively. Tanzania in response insisted on also ending Shell/BP's right to be the sole supplier of imported crude and products to the joint venture. Similarly the past history of a TNC and the arrangements (and profits) it has made may give cause for - and general acceptance of the validity of - renegotiations. The advent of independence has often led (sometimes with a few years' time lag) to such renegotiations, as have very high TNC profits compared to averages for TNCs as a whole or for that sector.
20. Renegotiation is coming to be seen - by TNCs as well as states - to be necessary, not antithetical, to continuing relationships.

Contexts change, the future is unpredictable, 1983's apparently satisfactory agreement may look very inequitable or unsound indeed by 1990. Therefore, setting up built-in review and renegotiation mechanisms (open to both parties) is attracting increased attention in state - TNC initial negotiations. Ruling them out is increasingly viewed as rather like tying down the safety valve on a steam boiler. In renegotiation the state usually has a stronger position than in the initial negotiation. It knows more about the enterprise and the total surplus to be divided and the TNC has substantial sunk costs (eg fixed assets in the host state). This is not always the case, if a TNC is genuinely losing money on a venture and the state has major employment, foreign exchange, regional or use of infrastructure reasons for wishing continued operation, then the TNC's position in renegotiations is strong and that of the state correspondingly weaker.

State Participation in Enterprise Ownership

21. States participate in the ownership of enterprises for a very broad range of reasons. To increase public sector revenue is certainly one, but by no means dominant in most states nor even in respect to each public enterprise in any state.
22. Equally while a commitment to a transition to socialism does - if serious - require a substantial and rising state role in ownership of productive assets, very substantial state enterprise sectors characterize many countries - eg Kenya, South Africa, India, Brazil - which are not, and do not claim to be, committed to creating a socialist economic system. Similarly in any transition to socialism an instant change from public to private ownership (even of large enterprises) is unlikely to be practicable - both the German Democratic Republic and China had substantial capitalist industrial sub-sectors for a decade after socialist governments came to power. Nor is there any necessary incompatibility between a commitment to socialism and some joint ventures with TNCs for specific purposes any more than between a

commitment to capitalism and a substantial number of cases of the state being the national partner with foreign TNCs in joint ventures. This is particularly true in Africa. The limited domestic resources in respect to knowledge, personnel, institutions and finance lead to a need for foreign partners. In respect to large business enterprises, the only available partners are TNCs or a socialist industrial state's enterprises whose role from the African host's point of view may be very similar. By the same token, domestic private capitalists usually have even less knowledge, personnel, institutional base and access to finance than the state or its enterprises so that often the only meaningful national partner available is the state.

23. In respect to those enterprises in which TNC participation is likely - eg mining, manufacturing, international and wholesale commerce, finance; as opposed to electric power, railways and other public utilities - the basic case for state participation usually turns at least as much on acquiring detailed knowledge of and control over what the company is doing in respect to output, expansion, employment (including training) and similar issues as to public sector revenue proper. Certainly dividends are one way of securing a profit share, but if that is the only concern various other approaches - including sliding scale profits taxes - might often serve equally well. However, knowledge and control (at least in the sense of positively causing things to happen) are usually harder to achieve from outside than as a joint owner. That point, of course, cuts two ways - TNCs may well be able to influence government policy more effectively if there is joint ownership. That explains why some TNCs actively seek state participation - indeed on occasion majority participation - in proposed new, or even existing, enterprises.

The Namibian Context

24. In the case of Namibia, TNCs are at present very important. This flows in large measure from the fact that in normal years up to three quarters of exports and of pre-tax enterprise services come

from three mining companies: Rossing (RTZ), Consolidated Diamond Mines (de Beers/Anglo) and Tsumeb (Consolidated Gold Fields/Anglo). It is made more pervasive by the dominant role of two TNC Banks (Barclays and Standard) and of two petroleum products importers/distributors (Shell and BP) and the dominant karakul export firm (Hudsons Bay). Further while fishing, and meat packing, and construction are technically not TNC dominated in the sense that control is largely in the hands of large South African companies, from a Namibian point of view this is a distinction without a difference. The same holds true to a slightly lesser degree for general importing and wholesaling and for road motor transport.

25. The situation in respect to prospective renegotiation is partly special and partly genuinely unique. None of the TNCs entered Namibia after negotiations with a Namibian government - indeed some of the basic arrangements date back to the German colonial period. A number of enterprises - including the three main mines - have made historic profits which it is hard to characterize as other than excessive. They have made them, furthermore, within an apartheid and quasi forced labour system under a favourable tax regime and with low reinvestment ratios. These characteristics alone would - in the present climate of world opinion - constitute grounds for fairly far reaching renegotiations.

26. The unique factor is that under the 1971 International Court of Justice advisory opinion to the United Nations, South Africa's presence since the revocation of the Mandate in 1966 has been unlawful. Therefore any South African - TNC arrangements negotiated since 1966 are void ab initio so far as the international legal position goes. Thus, in cases such as Rossing and the new meat packing plant complex, the situation facing Namibia and the TNCs at independence is one of negotiation not renegotiation as the South African negotiators had no lawful power to negotiate. The situation in respect to pre-1966 firms which have continued to do business is much less clearcut but, as noted, seems to fall in most cases within the parameters of cases

in which both world legal and commercial opinion accept that substantial renegotiation, including fiscal and financial provisions, is both inevitable and justifiable.

27. However, there are limits to the strength of Namibia's negotiating position. Continued efficient operation of mining, banking, etc, is essential to having a functioning economy. At independence there will not be enough trained Namibians to achieve that. Therefore either present TNCs, new TNCs, expatriate contract managements (without ownership) or individual hired expatriate managers and professionals will be essential. In some cases the dislocation costs of sudden replacement of present TNC management and personnel would be high. That cost is a necessary factor in shaping a Namibian negotiating stance even though it may, in some cases, be a cost worth paying.

Part Two: Fiscal and Financial Issues: TNC Perceptions

Background

28. A company or corporation consists of a body of people coming together for the purpose of conducting trade. The main purpose of trade - not the only purpose, as we shall see, - is making profit. Therefore the main purpose of TNCs is the generation of profit.

29. That proposition resides at the heart of our analysis of corporate decision-making. It is a central truth. The understanding of it, and of its implications, explains the conduct of corporate bodies both large and small, explains how small companies grow to be large, explains how even large companies can fail and can disappear. Yet what a multiplicity of motivations that truth conceals! Companies consist of men and women. 'Economic man' is not the whole man. However massive the corporation and however dry and automated its bureaucrats appear, its decisions in any particular situation are taken by individual men and women who are moved by passion and hope, by fear and by pride.

30. It is important to remember this. In dealing with a massive TNC, we must understand the system which has enabled it to grow. We must understand the concatenation of forces that constitute its collective decision-making process; and what, within that system, distinguishes a successful from an unsuccessful decision. But we must also remember that any particular decision is taken by individual men and women, and is the product not just of objective facts and cold figures, but of personal judgements, personal apprehensions and personal ambitions.

31. The term 'profit' refers loosely to the extent by which the revenue from any activity exceeds its costs. But beyond this simple description, 'profit' is not a single precise concept. The same is true of 'profitability' and 'rates of profit'. There

are many different ways of measuring these concepts, and there may indeed be many different ways of arriving at the figures that are to be used in these different methods of measurement. To give but two examples....there is no logically right way, to the exclusion of all other ways, of dealing in the accounts with the depreciation of a capital asset which lasts for a number of years but which, it is expected, will have to be replaced before the end of the project. Nor is there a single correct way, in seeking to measure profit, of dealing with the phenomenon of inflation.

32. But if there is no single correct way to measure profit, how do businesses and governments arrive at a method of measurement - and a set of figures - that both are prepared to accept? Sometimes they cannot agree, but more often they do. The way in which they do so is two-fold. First by agreeing on a set of conventions (or agreed procedures) that will be used for deriving the figures and making the required calculations. Second, either by insisting that a company's figures are checked by a firm of independent auditors or, on occasions where there is serious controversy, by one side or the other insisting that their own accountants should be allowed to examine in detail the books and calculations of the other party.

33. Many people now are familiar with the derogatory epithet 'creative accounting' - presenting figures to indicate that a company is doing either much better, or much worse, than it actually is. What is less well understood is that even with the use of acceptable accounting procedures, there is still very considerable latitude for companies to shift profits from one part of the world to another, or from one year to another, to lower profits by incorporating pessimistic assumptions (for instance about doubtful debtors) or to increase them by incorporating optimistic assumptions (for instance about the value of stocks on hand). The question "What is the true profitability?" turns out not to be a valid question with a unique "true" answer because there is no single, universally appropriate measure of profit.

The assessment of profitability

34. If there is no single measure of achieved profit, it follows that there can be no single way of assessing the likely future profitability of a project which has yet to be brought into being. And that is indeed the case. Methods of project appraisal, some very simple some very sophisticated, contend with each other with some companies using one method and some another. The choice of method matters. It matters not only to any government that may be negotiating the terms of a project with a company, but to the company as well. It matters to the government because it cannot properly understand how the company intends to operate and what terms for such operations would be appropriate, unless it also understands the techniques by which the project has been appraised. It matters to the company in part perhaps because it seeks to use the appraisal to wring the best terms that it can from government. But more fundamentally, the correct choice of projects to invest in is a vital component in overall company efficiency and profitability. If the company persistently makes wrong choices, it will become unprofitable and fail. If that happens the whole value of the company as reflected by its share price will fall. Eventually, in the capitalist world, it will either be taken over by a more efficient company whose managers believe that they can make more profitable use of the company's assets. Or if it continues to make losses and no-one takes it over, the company will become insolvent in the sense that its debts will exceed the value of its assets. It will then be forced to close down, and all those who have invested in it will lose their money.

35. The foregoing discussion opens up another possibility. The story of the businessman who keeps one set of books for himself and another for the taxman is a very old story. Similarly, it should not always be assumed that the cash flow projections which a company produces for the purpose of negotiating with a host country government are precisely the same as those that it

employs for making its own internal project appraisal. A high degree of technical knowledge and experience of the business, and detailed scrutiny of such projections will be necessary to determine whether they are realistic and should be accepted as a basis for negotiations.

36. Appendix A looks at a number of ways of conducting the financial analysis of projects, starting with the simplest and working up to an introduction to the DCF rate of return analysis most commonly used by major corporations today.

The Uses of DCF Analysis

37. TNCs make use of DCF analysis in a number of different ways. They will wish to see the estimated rate of return on the project as a whole before taxes and other payments to government. They will wish to see the DCF rate of return on the project after such payments to government are made. They will wish to see what the rate of return to equity holders in the project is likely to be, i.e. to themselves and any other partners who will take up equity holdings. They will wish to vary the assumptions fed into the analysis both on the optimistic side and on the pessimistic side to ascertain the sensitivity of the rate of return to various changes that might occur. They will wish to try varying the design of the project, or its financing package, to see whether it is possible to sweeten its rate of return or increase its net present value without substantially increasing risk or funds deployed.
38. Most companies have some benchmark rate of return 'target figure' which a project has to meet before it will be considered for implementation. In fact there will be one target figure for IRR on the entire project, and another for the IRR to be achieved on a firm's own equity involvement. It would be false to give the impression that these figures are absolutely firm - other features of the project will be taken into account in the adjustment of such target figures marginally upward or downward. Such features may include the size of the project, the part of the world where it is to be situated, the sector it is in, the degree of commercial or political risk that is thought to be involved, the quality of the management available to run the project, the 'up-side' potential for the project if demand for the project's product proves to be stronger than anticipated, and whether the project fits particularly well into the TNCs overall strategy.

39. Decisions on major investments are made by boards of directors who will certainly have detailed numerical appraisals prepared for them which will show whether or not a project seems likely to meet minimum stipulated rates of return. But these appraisals will not be the sole determinants of the eventual decision. Apart from the various DCF rates of return, a typical TNC will also look at the maximum financial exposure that will be involved in constructing the project, and how that will effect its balance sheet. It may even look at the crude 'pay-back' period, in the sense of wanting to know how long it will take for the company to recover its investment.
40. DCF analysis - like any other - produces results no more accurate than the assumptions and data fed into it. Costs and receipts are projections (estimates) and may vary widely as to amount and timing. This is especially true of metal prices which swing sharply and unpredictably so that DCF for a project may be greatly affected by whether production opens on a price upswing or at the beginning of a downturn (e.g. Bougainville in Papua New Guinea was very fortunate in this regard and Otjihase most unfortunate). Inflation affects most of the future receipts and payments and - in a sense - the appropriate "cutoff" Internal Rate of Return. To guard against nasty surprises TNCs increasingly run multiple analysis testing for sensitivity to different timing and levels of receipts and to varying inflation rates.
41. A TNCs DCF for a project may not be the same as a country's. The project may generate net cash flow for TNC units outside the host country as sellers of goods or services to and/or as processors and marketers of the projects output. These are unlikely to be explained to the country (which must try to guess for itself as to their significance) but do affect the acceptable DCF to the TNC as shareholder in the project proper.

42. We have identified the making of profit as the main motive force for undertaking an investment. That conclusion stands. But it needs to be qualified in two ways. It may not be the only reason why a TNC makes an investment. And the profit of the subsidiary may not be the only source of profitability to the investing TNC.
43. What other motives may influence an investment decision other than the prospect of profit on the project itself? There are many. A company in the mining business, for instance, may wish to procure access to orebodies to replace others that are nearing depletion, to feed smelters within their own company group or to meet the demand of established customers. Some companies are particularly eager to diversify the sources of their primary supplies in case military or civil disorders, or labour action, puts in jeopardy a major portion of them. A company may invest or purchase other companies abroad in order to procure assured markets for its own exported products. This process is known as forward integration. It may want to expand horizontally (i.e. in the same line of business) because it believes that it had a technique of manufacture or management strength or an improved product that will enable it to capture markets from its competitors. Or investment may be defensive, such as when a company is obliged to move into some local manufacturing of its products in a foreign market to forestall some other firm from doing so, which would then seek to have the government exclude importation of the finished product from the company that had previously held the major share of the market. In a broad sense such actions are taken to expand, protect or limit losses to group profit, but they are consistent with investing in a project with an apparently low or negative DCF.
44. Sources of profit to an investing TNC other than dividends, are an aspect that has come to assume increasing importance. TNCs have learnt that many host country governments do not like to see substantial profits flowing abroad. Therefore, rather than receive profits overtly in the form of declared dividends, many TNCs now find it discrete and advantageous to take their revenue

from the project in other forms. The modalities are quite numerous, and the methods employed may be quite open and legal. Indeed it may suit both host country government and investing company that revenues should be received in this way.

45. One such way of taking revenue out of a project and of recovering the original investment faster than would otherwise have been possible is by making use of loans from subsidiary and affiliate companies to replace money that would otherwise have been put in as equity. Interest payments are treated as a cost to the project, deductible in the assessment of taxable income. The payments themselves are usually not taxed as income earned within the host country if they are paid abroad, although they may be subject to an interest withholding tax. The repayment of the capital of the loan is not taxed either. It may therefore be an easier way for an investor to recover a part of his initial capital than by trying to recover capital invested as equity, which can normally only be done as long as the company is still operating through the receipt of dividends, which will have been liable to both company income tax and dividend withholding tax. It is now common practice for governments to insist that foreign equity from the investing TNC should comprise a certain minimum proportion of the value of the investment in a project, and that loan finance - particularly locally provided loan finance - should be restricted to agreed proportions.

46. Fees, commissions, royalty and licensing payments, and contributions to head office expenses are other forms of payments from the subsidiary company to the investing TNC that may comprise a significant proportion of the beneficial revenue flows that the TNC receives. They have the advantage of not being subject to exchange control to the same degree as dividend payments; and, instead of attracting host country company taxation, they are treated in the subsidiary company accounts as expenses that reduce domestic taxable income. The problem with these types of payments is that, at appropriate rates, they constitute legitimate payments for genuine and important services. But the appropriate level of charge is difficult for

many developing country governments to check. It is for this reason that a growing number of countries levy withholding tax on all such payments made outside the country, usually at a rate less than normal company tax.

47. To the extent that inter-company (or intra-company) fees, commissions, royalty charges, etc. are excessive, they constitute a form of transfer pricing. Other forms of transfer pricing in the sale of equipment and material to the subsidiary company, or in the purchase of the product of the subsidiary company, also constitute a method of transferring revenue from the investment in a foreign country to the TNCs own main controlling company, or possibly to a subsidiary company established for the purpose in an overseas tax haven.

48. In deciding whether to make an investment in a new project, or for that matter in deciding whether to go on operating an existing project, a TNC will take an integrated view as to how the project fits into its entire corporate strategy. It will also make its own assessment, in detail that will not be available to the host country government, of all the potential sources of revenue that it may expect to receive from the project, amongst which the dividends shown as payable on the cash flow projections may comprise only one important element.

Mining as a Special Case

49. There are factors which make the design of fiscal regimes for mining companies both particularly interesting and particularly difficult. At the root of this difficulty resides the fact that, in most developing countries, the State is both the owner of the mineral rights and, through the government, the central taxing authority. It follows from this that the payments that a mining company makes to a government comprise, conceptually, two very different types of payment. The first type of payment is the company's payment for the right to mine - the equivalent, if you like, to a purchase of the material that is valuable within the orebody, which in turn gives the company the right to exploit that orebody and to export the mineral. The government receives that payment in its role of owner of the mineral rights on behalf of the people of the country. The second type of payment is the payment that the company makes upon its taxable income - and possibly also through deductions from the interest and dividends that it pays if such taxes apply. The government receives these payments in its role as general taxing authority in exchange for the security and services which it supplies to all its citizens, both individual and corporate.
50. This distinction between the two types of charge and the two types of payment is important because different principles determine in each case what the appropriate level of payment ought to be. There is no reason why a mining company, as a corporate citizen, should not be subject broadly to the same rules of taxation as apply generally to other companies operating within the same tax jurisdiction. Exceptions to this general proposition should be few and can be justified only by proof that they are to the public benefit. Payments for the right to mine and sell the country's irreplaceable mineral wealth are subject to quite different principles. If we ask, "What is the right price for the government to charge for the sale of the country's minerals?", the answer is surely clear. It is the highest price that the government can procure from an efficient mining company while leaving the company just sufficient inducement to undertake the mining. On the

assumption that the government is not in a position to undertake the mining itself - or through a management contract - in a manner that will leave it with a greater net benefit, the principle stated must be correct. Any higher price would leave the deposit unmined; any lower price would leave in the hands of the company a part of the benefit from the mining (the 'rent element') that properly belongs to the people of the country.

51. A confusion between these two types of charge is often compounded because it may suit both the host country government and the mining TNC to name as 'taxes' some forms of payment which are in fact more truly payments for use of the resource.

52. We have argued that the income tax provisions applicable to mining TNCs should, in essence, be the same as those which apply to other foreign companies. But what of the basis of the charge for mining the orebody? That is a far more difficult matter. It is difficult, first, because at the time when the mining agreement is signed, which is likely to be before the full exploration phase, neither party, and certainly not the government, will know precisely what it is that is being sold - ie the size, location, richness, geological and chemical qualities of the orebody, or other characteristics about it which will determine the ease and profitability with which it can be worked. In other words, neither party will know the potential value of the deposit. But there is a second cause of difficulty. The prices of mineral products are notoriously volatile. It follows that, even if the actual quantity and precise costs of production of a mineral product could be known in advance, the profitability would be unknown; and it is on the profitability of future productive activities that the present value of the mineral resource depends.

53. For the government of a developing country, the way to resolve this problem of setting an appropriate price for the sale of its mineral resources - again assuming that it is not policy for the state to mine the resource itself - lies in the selection of the right pricing formulae. Progress in the evolution and acceptance of new formulae has in recent years been rapid. The precise formulae to

be imposed or negotiated in any particular case are likely to depend upon the characteristics of the mineral itself and its marketing structure, upon the policy frame of the government, and perhaps also on the preferences and tax position of the company. But it is possible to discuss the properties that the pricing formula ought to possess.

54. Our experience suggests that the right combination of charges should demonstrate three distinct properties, which will assume differing importance depending upon whether the property turns out to be:

- (i) a relatively poor and unprofitable mine;
- (ii) an averagely profitable mine;
- (iii) an exceptionally rich and profitable mine.

The first form of charge or imposition should be related to production. Under the name of royalties (signifying payments to the king for use of a resource which was recognised as being his property), such payments originally took the form of a certain proportion of the actual physical production, then a certain fixed payment per ton, and finally - most commonly - a certain percentage of the value of production. It is often urged against 'royalties' that they operate as an addition to fixed costs and thus, theoretically, reduce the size of the orebody by rendering marginal parts of it uneconomic to mine. This is in the interest of neither the resource owner nor the operator. Such arguments are correct, and are a reason for keeping royalties for most types of minerals comparatively low (say 2½ to 5 per cent of value) ... and for giving the Minister power to waive, defer or reduce royalty payments in exceptional circumstances.

55. For a mediumly profitable orebody, it is sensible to make the major part of the charge a function of profit. This can be done by the imposition of a minerals profits tax on top of the ordinary company income tax. Another way of achieving the same purpose is through the issue of shares in the mining enterprise concerned to the government, either without any financial payment or on concessional terms. The former device is often referred to as 'free equity' -

but this is a misnomer. Our analysis makes it clear that the issue of the equity is indeed one form of payment for putting the resource at the disposal of the operating company. As a substantial shareholder, it is common for the government to be offered representation on the Board of Directors as well. Suitably conducted, such an arrangement can be helpful to the company in ensuring that directors appointed by government - and presumably trusted by them - acquire an intimate knowledge of the problems of the industry: it also helps the government - both to become acquainted with the operations of the industry and, providing the directors take the necessary trouble, in monitoring the conduct of the company.

56. The table below illustrates in simplified form what happens to the value of output, the level of profit, and the 'rent element' if a mine turns out to be naturally much richer than the average of similar mines producing the same mineral.

	No rent element case	Base case
1. Revenue (R)	90	100
2. Royalty @ 5% (r)	4.5	5
3. R - r	<u>85.5</u>	<u>95</u>
4. Operating costs including capital allowances	45	45
5. Profit before tax	<u>40.5</u>	<u>50</u>
6. Tax @ 40%	16.2	20
7. Profit after tax	<u>24.3</u>	<u>30</u>
8. Govt. share of dividends (20%)	4.86	6
9. Operator's share of dividends (80%)	<u>19.44</u>	<u>24</u>
10. 'Rent element' in revenue	0	10
11. Total 'surplus' of which	<u>45</u>	<u>55</u>
12. Operator's take (line 9 ÷ line 11)	43%	44%
13. Government take (lines 2+6+8 ÷ line 11)	<u>57%</u>	<u>56%</u>

Base case
revenue
x 1.1

Base case
revenue
x 1.5

Base case
revenue
x 2.0

110

150

200

5.5

7.5

10

104.5

142.5

190

45

45

45

59.5

97.5

145

23.8

39

58

35.7

58.5

87

7.14

11.7

17.4

28.56

46.8

69.6

20

60

110

65

105

155

44%

45%

45%

56%

55%

55%

57. The important lines to examine are 1, 7 and 10. From these, we can derive the following summary of results.

Increase in revenue over base case (%)	10%	50%	100%
Increase in profit after tax over base case (%)	19%	96%	190%
Increase in 'rent element' over base case (%)	100%	500%	1,000%

58. We can interpret these results in words by saying that, in our example:

- (a) when the gross revenue increases by 10 per cent, the profit increases by 19 per cent, and the rent element doubles;
- (b) when the gross revenue increases by 50 per cent, the profit increases by 96 per cent, and the rent element is increased five-fold; and
- (c) when the gross revenue doubles, the profit just about trebles, and the rent element is increased by a factor of 10.

59. The missing component in the royalty and tax regime described so far is a charge that will appropriate for the owner of the resource the 'lion's share' of the rent element arising from the exploitation of an unusually rich or profitable deposit. It is not sensible in practice to attempt to appropriate all of this rent element for the owner of the resource, since this would remove all incentive to the operator to conduct his operations efficiently. But it is both appropriate and necessary that the major portion of this element should accrue to the resource owner (ie the government on behalf of the people of the country), and this can best be done by means of a resource rent tax (RRT) or an additional profits tax (APT). A prevailing opinion is that, if incentives to efficiency are to be maintained (which is strongly in the interests of the resource owner), the rate of the APT or RRT should not exceed 70 per cent.

We now have, in principle, the troika of charges that can best be put in place as the sales price for a developing country's natural resource.

60. These are:

- (a) the charge upon sales, which will be particularly important when profits are low;
- (b) the charge upon profits, which will predominate when profits are normal;
- (c) the charge upon the rent element, which will become particularly important when profits are high.

A properly constructed formula for pricing the sale of the resource should contain all three components.

Renegotiation as a Special Case

61. Most analysis of agreements between mining TNCs and developing country governments concerns itself with the terms of initial agreements conducted before the investment is made and the mine constructed. Equally important in some cases may be an examination of the basis upon which existing arrangements may be altered and an analysis of the conduct and terms of renegotiations.

62. A major alteration of the arrangements under which mining is conducted in a developing country may occur for any one of a number of reasons. The existing agreement may make provision for its own renegotiation. The conditions and assumptions under which the original agreement were negotiated may have altered so radically that the agreement has become impossible or intolerable for one party or the other. A major policy or political change may have taken place in the governance of the country concerned. Illegal or improper action may have been taken by one party or the other resulting in an abuse of the explicit or implicit arrangements hitherto in force. On not all such occasions will renegotiation be either appropriate or necessary. It may be that unilateral action

is justified and called for. But in virtually every case where a mining company already operating desires, or is desired by the government in question, to continue its mining operations, some form of discussion resembling a negotiation will become necessary. It is to the analysis of those sorts of cases, embodying those assumptions, that we now turn.

63. A government conducting a renegotiation has several clear advantages over a government conducting a negotiation for the development and exploitation of a deposit which has not yet been discovered and proven. To begin with, the existence of an exploitable orebody is known, and a great deal of information will be available as to its richness and potential profitability. Most of the investment for continued operation is likely to be in place, and to some extent may be regarded as being at hazard unless the mine operator agrees to terms acceptable to the government. The circumstances which the government will need to consider, if decisions are to be made primarily on economic grounds, will be concerned with the advantages to the country to be gained from:

- (a) closing down the mine;
- (b) taking over operations itself, or through a state-owned subsidiary;
- (c) inviting in a new operator to replace the previous operator;
- (d) allowing the existing operator to continue on unchanged terms;
- (e) allowing the existing operator to continue on revised terms.

64. No clear a priori answer can be given as to which of these courses of action will be most advantageous for the country concerned. That will depend upon prevailing circumstances and possibilities, and to some extent also upon the policy objectives which the government defines for the country. In economic terms, mine closure will only be sensible if the deposit is reaching exhaustion, if continued mining is uneconomic or - conceivably - if there are grounds for believing that the future value of the deposit will be greatly in excess of its current value. These possible conditions are not further discussed. The conduct of mining through a state enterprise will be dependent on the ability of such an enterprise to

recruit, organise and manage the personnel required, and on its ability to maintain supplies, production and sales on a cost/revenue basis comparable to what would be attainable under other forms of organisation. Of importance in this respect are not only the internal capacities of the state enterprise itself, but the creation and maintenance of a general politico-economic environment in which such enterprises can operate efficiently. The recruitment of a new operator to replace an existing operator - either on a management basis, or an ownership basis, or on a combination of both - is nearly always a theoretical possibility. It is then an empirical question as to whether or not the terms which would be acceptable to a new operator would be more advantageous to government than those which could be renegotiated with the existing operator. To allow the existing operator to continue on unchanged terms would be the correct course of action only if, taking all circumstances into account, none of the alternatives can be made to be more advantageous to the government and country where the enterprise is situated. The last option involves a renegotiated set of arrangements with the existing operator. It cannot be assumed that this will produce the most advantageous result for the government concerned. It is, however, assumed for the purposes of this paper that this is an option which the government is willing to examine. The modalities for conducting such an examination will therefore be considered.

65. The objective must be not just to get an improved deal for the government, but to test out what is the best possible deal obtainable from a renegotiation and then to ascertain whether this is likely to prove more advantageous than any alternative possible arrangement. A number of measures need to be taken in order to make such a test effectively. These include the formation of an efficient negotiating team within government containing broad representation from interested ministries, but also having access to the necessary professional and technical advice. The team itself must be given a clear policy directive but must also have access to a minister or ministerial committee so that a dialogue may be maintained concerning the interpretation of the directive into practical and negotiable arrangements. A sense of purposeful

unity, firm but not too rigid, must be created between the negotiating team (including the component ministries), the political leadership, whatever national assembly may be required to pass legislative measures, and popular opinion at large. It should not be assumed that this sense of unity automatically exists; but, without it, some of the actions which the government may need to take (or threaten) will not be possible, or credible. In a sense, all renegotiations of this type involve two simultaneous exercises - the first consists of the search for the most favourable possible agreement; the second consists of the preparation for those actions which will become necessary if no agreement can be reached. Without the second exercise being mounted, the first exercise cannot be successful. A detailed analysis of the company's position also needs to be conducted to determine on the basis of informal, objective analysis the position most favourable to the government that would just be consistent with the company deciding that it would be in its own interest to agree to the renegotiated terms proposed. Once these measures are in place, the implementation of a strategy and of tactics for the renegotiation become possible.

66. If the renegotiation is to be successful, two impelling forces have to be created and controlled. The impelling force which has to operate on the company must be the conviction that any alternative to acceptance of the terms available would be worse for the company's own interest. The impelling force which has to operate upon the government must be the conviction that no alternative solution realistically attainable would be more to the country's advantage than the renegotiated terms that a purposeful effort have rendered available.
67. Each party to a renegotiation should be in a position to bring benefit to the other. If that is not the case, the underlying reason for a continuing association does not exist. But each party is also likely to be in a position to damage the other. In procuring an advantageous result, the organisation of the power to damage and the organisation of a defense against the other party's power to damage may prove as important as the willingness to offer benefits.

68. It is in respect of this last consideration that the respective legal position of the two parties assumes particular importance. If a government repudiates or unilaterally alters an agreement which appears to be both reasonable and commercially binding, the influence of the offended company in preventing the successful operation of the enterprise under alternative managerial arrangements and in deterring future investment may be very considerable. That is bound to be a factor in the government's own assessment of what it can realistically threaten, and of what alternative arrangements it could advantageously operate. Similarly, if a company can be shown to have been operating in defiance of international law, that will very considerably strengthen the hand of a government pressing a demand for a substantial renegotiation - or even insisting upon a unilateral change - in the terms and conditions under which the company had previously operated.

Part Three: Fiscal and Financial Issues: Host Country Perceptions

Background

69. Host countries have a number of expectations of foreign investors (TNCs). The basic expectation is that value added locally by the TNC will be positive, taking into account of course all foreign payments, including dividends and other payments to foreign enterprises such as interest, royalty, patent fees, head office overheads, etc. The reasons why host countries may be willing to concede foreign control over local assets, and an outflow of profits and other payments are:
- (a) to obtain an inflow of capital on which the "debt service" (namely the outflow of profit in the form of dividends) is payable only when the investment is profitable;
 - (b) to obtain the TNC's expertise, in production and also in management, marketing and in access to markets, finance, and inputs;
 - (c) these reasons interact as external lenders often insist that a known, experienced management be in firm charge of the project and, in practice, that usually means a TNC.
70. The host country does not necessarily have to "buy" the capital and expertise as one package: capital can sometimes be borrowed or provided out of domestic savings, expertise can sometimes be bought separately. The two usually do come as one package: because it is simpler, because the TNC often insists, because a share of the profits through ownership is a convenient way of giving the management an incentive to operate efficiently, and because the TNC's desire to protect the reputation of the company and its products can also be a useful way of encouraging efficiency. None of these reasons is conclusive, - for example

performance-based rewards can be built into management contracts - so the possibility of buying capital and expertise separately should be kept in mind.

71. Host countries also expect a number of additional benefits to accrue from TNC investment and production, notably:
 - (a) increased government revenue from direct taxation of profits and from the increased level of output, income and expenditure
 - (b) increased foreign exchange earnings from additional exports or import substitution
 - (c) transfers of technology and skills, through learning by local employees, on the job and through training schemes
 - (d) re-investment of profits to expand output and further increase the gains already listed.

As noted earlier, these are not gains associated with TNCs only but ones associated with well-chosen and operated projects whoever owns or manages them.

72. Originally, host countries thought that these benefits would flow more or less automatically from TNC investment. All that was needed was to induce as much investment as possible. Indeed, it was even worthwhile to forgo some benefits in order to induce investment and so secure the others. Many developing countries passed legislation offering inducements to foreign investors, such as tax holidays, cheap land, cheap inputs such as water and electricity, and other financial concessions, while at the same time allowing the investor complete control over the investment and the subsequent production from it. Much of this legislation still exists, even though many developing countries' perceptions of TNCs have changed.

73. Most fundamentally, developing countries have become aware that TNC objectives may conflict with national objectives because of the transnational character of the investor. There are

potential conflicts of interest between all companies and all governments, for example over the definition of profits for tax purposes, or over the respective responsibilities of the company and the government in the provision of training. But international investment creates additional conflicts of interest of a particular sort:

(a) Global profit maximisation may require different action by a TNC from the action of a local company maximising local profits. For example a TNC with spare capacity in existing plants abroad will usually prefer to supply inputs from those plants, rather than develop new production capacity in a developing country. This is the main reason why it is not a sufficient condition for investment by a TNC for there to be a profitable investment opportunity. A company supplying the market already will normally only invest in local production facilities if its market is threatened in some way, for example by a rival supplier offering to invest in local production behind tariff barriers which would exclude rival products. Furthermore, a company supplying inputs from abroad or selling output to affiliates will be able to choose where to receive its profits, through transfer pricing. Higher taxation or exchange controls in the host country on the remission of dividends, or even the possibility of them in the investor's mind, will induce a company to use transfer pricing (and other methods) to receive most or all of its profits abroad. For example mining companies selling concentrates to associated companies may not charge for secondary metals contained - as has been asserted to be the case with Tsumeb. TNC banks may transfer surplus balances to their external head offices without receiving interest on them - as several banks in Namibia, most notably Barclays, do.

(b) The TNC's bargaining position depends greatly on its

having knowledge and skills not available to the host country, so the TNC has an interest in not passing on technology and skills to host country nationals, even when local salaries are lower than global ones.

Because the interests of the local expatriate managers are to some extent different from those of the TNC, the local expatriate (or settler) staff may prevent the local acquisition of skills in order to protect their own jobs, even when head office policy is in favour of localisation.

- (c) Whereas a local company will normally invest its undistributed profits either in its own expansion or in local financial institutions for local investment, a TNC may expect it to be more profitable to invest somewhere else in the world.

- (d) The choice of technology in production is likely to be biased in favour of capital intensive methods in TNCs: because their managements are more familiar with such technology; because developing new technologies is expensive and operating diverse technologies within a group raises training, maintenance and spares inventory costs; and perhaps to reduce - for whatever reasons - the size of the domestic labour force. Some of these considerations are potentially in the host country's interests too (e.g. avoiding an untried technology does lower risk and tying in to a TNC group spares and maintenance expert pool can lower costs), but not all are consonant with its concerns.

74. For these and other reasons, host countries have sought in a number of ways to secure control over the profits and management decisions of TNCs, in order to obtain what host countries see as a fairer share of profits, and to ensure as far as possible that other decisions are taken in the national interest. Such action falls under three main headings: taxation, participation in ownership, and other controls (sometimes applicable only to

foreign owned and controlled companies, sometimes applicable to all companies but intended to affect primarily the situation in foreign companies).

Taxation

75. In some cases there have been very simple changes possible to improve the tax regime in the interest of the host country. For example, when the first African majority government took power a year before independence in Zambia, the copper mining companies were still paying royalty, in very large annual amounts, to the British South Africa Company in London. An offer to buy the royalty rights for £50mn was refused by the companies, mainly because the British Government would not guarantee the payments (the then Northern Rhodesian Government could not afford to pay for them in one lump sum). Research then began to reveal that the rights were based on a treaty signed by an African chief whose empire had never extended as far as the Copperbelt and, although the legal argument was not entirely straightforward, the royalties were eventually acquired for an ex gratia payment of only £2mn. An even odder historic remnant is the payment of a portion of the diamond royalties collected from CDM in Namibia to a subsidiary of CDM which holds the royalty rights originally granted during the period of German chartered company rule.
76. In general, the host country is faced with the problem of taxing TNCs as much as possible without discouraging new investment and reinvestment of profits by existing companies. If new foreign investment is wanted, it is not enough simply to tax in a way that appears optimal in local circumstances, tax rates need also to appear reasonable by international standards. A similar argument applies to compulsory acquisition of TNC assets.
77. It is essential for any host country negotiating with a TNC that it should be in a position to understand that particular TNC's motives. For instance, it may be wrong to assume that a TNC will be acting exclusively as a maximiser of profit after tax,

and therefore will be induced to invest by tax concessions at least as generous as those offered by other countries. Some TNC investment is induced by the threat of losing the market to a rival company. Some investment is undertaken in order to capture a larger share of the market: for example, Fiat invested in an assembly plant in Zambia because a near 100% share of the market for complete kits for assembly was much more profitable than a very small share of the market for assembled cars. In this case the main profit was in Italy, the main incentive for the investment being the promise of tariff and other barriers against imports of other makes of car. Any tax concession in such a case is a waste of government resources, since the investment would almost certainly take place without it. Further, assembly operations protected by high tariffs often have net foreign exchange costs (including components, fuel, expatriate salaries and servicing of foreign loans) greater than the cost of directly importing the finished product.

78. Similarly, a large German brewery was chosen by the Botswana Development Corporation (BDC) to be its partner in building a brewery in Botswana. The new company was given an exclusive licence and a 50% tariff against imports - in other words the Botswana Government did its best to present the Botswana market to the new company. The important question was why a company from several thousand miles away should have been interested in an investment in such a small and remote market. The whole Botswana market would have added only about 0.35% to the total sales of the TNC, which hardly seemed to justify the trouble and expense. The company could have been simply a machinery seller, able to make a quick profit on the sale of the brewing machinery, and using Botswana Government money to cover most of the cost. However, the TNC put up half of the money, so that it would have had to make more than 50% on machinery sales, in commission and brokerage (or kickbacks), in order to recover its capital and make a profit without having also to make a profit on production. This seemed very unlikely, especially as the machinery came from nine different suppliers, none of whom had any overt connection with the TNC. As it turned out, when further capital was needed

after production had begun, the TNC provided it, thus confirming that it was interested in achieving profitable production. In the end it appeared certain that the real reason for the investment was a desire to establish the brand name in Southern Africa behind protective tariff barriers and exclusive production rights in Botswana, with the idea of selling in the very much larger South African market eventually. An attempt to set up in South Africa in the first instance would almost certainly have been defeated by the already established South African brewers. If this analysis is correct, then the concessions offered by Botswana were correct: a quasi-guarantee of the Botswana beer market for eight years, but without any tax concessions, and with 60% Government participation in what was expected to be a high return on capital invested project. As it happened, the TNC underestimated the difficulty of setting up a brewery in a country with almost no previous experience of large scale manufacturing, and provided not nearly enough skilled personnel, against the advice of the BDC. But the point of this example is that, perhaps a little fortuitously, the incentive was appropriate to the objectives of the investor.

79. What has to be avoided is the offer of tax concessions to firms whose investment intentions are unaffected thereby. Thus firms whose investment is dependent on the grant of tariff protection, or the grant of an exclusive manufacturing licence, or the sale of machinery, or the sale of patent rights, or the discovery of a mineral deposit, or the guarantee of a supply of a raw material for processing abroad, should not normally be granted tax concessions. In some cases, however, a combination of a lower import duty and a tax concession or a mining licence with a moderate royalty plus a concession on company tax at low (but not higher) profit levels may be desirable. In practice, the "classic" investor of economic theory, whose sole investment motive is the maximisation of profit after tax, and who is prepared to invest without seeking from the government concessions which are particular to his investment, is extremely rare in Africa, which suggests that broad quasi-automatic tax concessions are likely to be expensive but not to attract much

investment which would not otherwise have come. There is also no point in a tax policy based on the need to induce new foreign investment if, for quite different reasons, little or no foreign investment is taking place. For example, if the political stance of the government is such that TNCs are mostly unwilling to invest, say because of some dispute between the government and existing investors, then tax concessions will induce no investment, but may have the effect of reducing tax payments on existing investments or on the few new investments which sometimes take place even in very unlikely circumstances.

80. In certain cases it may pay to trade off potential tax revenue for other benefits. For example, in the case of Botswana's main coal deposit, if lower royalties and taxes will induce Shell to take responsibility for building and operating the Trans Kalahari (Botnam) railway this may be a good bargain.

Participation

81. In the case of the Botswana brewery, the main reason for BDC participation was to increase the public sector's share of the profits. It was also intended, though, that the BDC would be able, through participation in management at board of directors level, to influence the TNC's policies on a number of other issues of interest to the government. These would normally include, in developing countries generally, such matters as training, localisation of staff, choice of technology, recognition of unions (although governments' attitudes on this point vary among countries), environmental choices (including, in the case of the Botswana brewery, the choice between bottles and cans), and any number of other issues. It is indeed possible for government participation to achieve some of these objectives, especially if a good working relationship is established. The government is more likely to be successful if its representatives have business experience and are not all civil servants, and if the government's board members are backed by a technical team of

advisors with relevant legal, accounting, business and other relevant skills. In practice there is a danger that the government board members will arrive at board meetings having not had time to read the board papers thoroughly, without proper briefing, and therefore very unlikely to be able to challenge the company board members.

82. Even on wholly owned parastatal boards, where no TNC is involved, the management have an enormous advantage over part time board members, because of their control of information and greater knowledge of the company's business. Even in such relatively ideal circumstances, where there is a much greater communality of interest than in the case of TNC-government joint shareholdings, government representation on boards of directors is not sufficient to achieve all of the government's objectives. In the case of TNCs, it is a useful way of allowing a small number of nationals to learn something about the company's operations. Even this modest aim will only be achieved if a proper flow of information reaches the board. When relations between government and TNC are bad, the management can very easily control this flow, thus preventing some or all of the potential gains of board membership from accruing to the host country.
83. In principle at least there is nothing to prevent a state from legislating to require major company boards to accept a government appointed member, irrespective of ownership. If such a director is well briefed and alert he can probably do as much to collect information and influence decisions as one named by virtue of a minority shareholding.
84. The really crucial point is that ownership and the related privilege of board membership are not sufficient to achieve government objectives. The taxation authorities will have to be just as careful in their scrutiny of the jointly owned TNCs accounts as when the company was wholly foreign owned. And all other policies intended to reconcile TNC and government objectives will also have to remain in place and be pursued as vigorously as ever. The big danger to be avoided is a

situation in which government regards part ownership and board membership as adequate in themselves to control TNCs in the government interest. Two approaches which can be used relate to audit. One is to give the government, as shareholder, the power to name the enterprise's internal auditor and to require him to report direct to the Board. A second is to give the government, as shareholder or more generally, the power to name the external auditors - ideally a national firm, if a qualified one like the State Audit Corporation in Tanzania, exists - and to require that their reports go directly to the Board and to the government.

85. In some cases, the inadequacy of ownership as a means of control is made explicit in a management agreement. For example, when the Zambian Government took a 51% share of the copper mines in Zambia, the new management agreement set out that the representatives of the minority (49%) shareholders, voting separately, would have to approve "all expansion plans and appropriations out of profit for capital expenditure or expenditure on exploration and prospecting". As one of the main stated objectives of the takeover was to increase the rate of reinvestment of profit in expansion, this provision effectively took away any power that the Government might have been expected to gain from its new ownership of the mines. Furthermore, the agreement gave the minority directors a specific directive "not to approve any undertaking for which the companies could not raise money on commercially competitive terms", which meant in practice that new investment would have to have the approval of foreign capital, since Zambian financial markets could not have provided large enough sums for any significant expansion. The agreement also stated that any post-tax profits not needed for capital or prospecting expenditure would have to be paid out as a dividend. The agreement did also state, however, that the minority directors should not unreasonably veto any commercially viable projects; the value of this provision would obviously depend on the capacity of the Government appointed directors to identify such projects independently of the companies' managements. Such a combination of TNC shareholder vetos on certain decisions with a clause requiring that consent not be

unreasonably withheld may be inevitable under some circumstances. TNC shareholders cannot be expected both to risk substantial capital sums and to have no power over decisions which could reduce profits substantially or cause losses. Since the impact of such decisions might be to serve other state interests, the government's interest in the value of its shareholding may not be seen as an adequate safeguard. As it happened, after the takeover a number of plans for expansion of mining capacity were announced, some at least of which could probably be attributed to the takeover, including the tax changes which were part of the whole takeover deal. Although the tax changes were probably important in encouraging expansion plans, the takeover itself, the terms of which were in the end freely agreed between the parties, also played a part in that it removed uncertainty about the future ownership of the companies and the terms of compensation.

86. The point of the Zambian example is that ownership in itself does not necessarily give very much advantage to the government, in the short term at least. There is some gain, for both parties, in the removal of uncertainty and the establishment of a structure which obviously has a better chance than 100% foreign ownership of lasting for a long period; but the fact of majority ownership in itself does not increase the amount of resources available to a government for the exercise of detailed control over TNC operations. In the Zambian case, the Government felt that it had to continue with the existing management groups in the absence of any reasonable alternative, and in those circumstances could only seek the political advantages of majority participation in the copper companies. The real issues, of getting as much as possible out of the mining companies for Zambia, had still to be pursued by all the various Government departments responsible - localisation by the Labour Department, proper definition of profits by the taxation authorities, prompt sale of foreign exchange to the Bank of Zambia, and so on. At the same time, the government appointed directors must avoid giving implicit government approval to TNC policies: the company appointed directors will try and push

policies through the board of directors which have public policy implications. Unless the government directors are alert to this strategy, the company will later be able to claim government approval because of the presence of the government directors at the board meetings.

87. Once the state is a partner in a joint venture with a TNC, alliances may change. In Zambia, for example, before the partial nationalisation, the government and workers were usually allied against the companies on wage issues. After, the workers and TNC shareholders tended to push for higher wages than the government favoured. The reason is that labour costs are a fairly low share of total costs but that copper mine wages tend to pull other wages (including those of the public service) after them. Thus increases, which by improving morale or deterring strikes would raise copper company profits, might also sharply increase state wages bills and inflationary pressures.
88. To ensure that mining companies sell at the "going price" requires either detailed monitoring or a state controlled mineral export corporation buying from the mines and selling internationally. The Zambian experience with Memaco (Metal Marketing Corporation) suggests that, if adequate marketing expertise is hired, such a company can cause modest increases in mineral export earnings and mining company profits as well as earning a profit itself.
89. In deciding how much compensation to pay for a share in a TNC operation, the host country must decide just exactly what it is that it wishes to buy. If the country needs the continued co-operation of the existing management, then the price must be adequate to satisfy that particular group. On the other hand if management-marketing-technical contracts offer a continued (even if lower) profit flow, a TNC may accept a lower price for all or part of the equity than it otherwise would. If the country wishes to continue to receive new TNC investment, then the price paid must somehow be presented to the world, the world of TNC decision makers in particular, as being "reasonable". In the

bargaining, both parties will try to make out to the world at large that its own position is more in line with current definitions of a reasonable price. For example, President Kaunda announced from the start that the copper mines in Zambia would be paid for on the basis of the book value of their assets. This is by no means an unambiguous definition, and was of course only the opening shot in a strenuous bargaining process. But it was a serious attempt to create an impression of fairness in the public mind, and to make it more difficult, therefore, for the TNCs to make a claim for a different basis of compensation.

90. President Allende from a more radical political standpoint, announced a similar method of compensation for the Chilean copper mines, but also said that the amount of exploitation in the past would be deducted from any compensation otherwise due. This proposition was taken seriously: a formula for calculating past exploitation was announced and the amounts carefully researched. One mine which had only recently been opened, and which had thus had no chance to exploit Chile by making excess profits, was paid for in cash to show the good faith of the Chilean Government. But the calculations showed that the other companies owed money to the Chilean Government, net. This was not acceptable to the companies, nor considered reasonable by the international business world in general. The result was that the companies did not agree to any of the proposed terms for compensation. American banks had already begun to cut off Chilean lines of credit. The point is not whether this response was fair, nor even whether some reduction in compensation on the basis of past high profits or other TNC actions can ever be justified internationally. It is that, because the Chilean approach was not seen as reasonable, it incurred costs to Chile.

91. Comparing these two examples, the Zambian Government was successful, in the sense that an agreement was reached, and investment continued. The Chilean Government failed to convince the world that its formula was a fair one, and this led not only to a failure to agree on the terms of a takeover, but is also generally believed to have contributed in part to the fall of the

Allende Government. It is not possible, though, to say whether the Zambian Government paid too much for its 51% share of the copper mines, merely that it paid enough. Nor is it possible to say how much more the Chilean Government would have had to pay to reach an agreement and satisfy the world at large, merely that it did not offer enough to achieve that purpose.

92. Definitions of what is and is not acceptable as reasonable vary over time, as well as among different groups, so that it is essential to keep up to date with agreements between developing country governments and TNCs, in order to be able to avoid paying more than is necessary to achieve the country's objectives. On the whole, public opinion has shifted in favour of developing countries in the last forty years. The sort of agreements made before the second world war, and during the post-war colonial period, would now be considered even by the most capitalist observers (TNC owners and managers for example) as exploitative. TNC representatives have also come to realise that unfair agreements are increasingly unlikely to be allowed to last, so that there is advantage to both sides to reaching agreements that are seen to be fair by modern standards. This does not mean that developing country governments can rely on TNCs to propose reasonable agreements unilaterally; a few years of excessive profits can be more than enough reward to compensate for the cost of a renegotiation, so the host country still has to press its case. But the arguments for a share in ownership and control, and for arrangements to prevent very large windfall profits, are now considered normal by TNC representatives and other potential investors. For example, additional profits taxes tied to rates of return on net worth (or assets employed) are becoming fairly common in the mining sector.

93. It is worth noting that there are some potential disadvantages to government participation in TNC operations. If the TNC makes heavy losses, and needs new finance to maintain its operations, then the government may find that it has to find some of the money. For example, the Zambian copper mines have borrowed at times from the Bank of Zambia in order to avoid closures and the

resulting loss of foreign exchange earnings and employment. Some of these loans have subsequently been converted into additional shares for the Government, which now has more than a 51% shareholding as a result, but the cost to the Government of this support was very high at a time of financial crisis.

94. The copper-nickel mine at Selebi-Phikwe in Botswana has also made losses from the start of operations, requiring large additional inputs of finance. For a number of years, this additional finance came entirely from the foreign shareholders; furthermore, the foreign shareholders were obliged to keep the operation going despite it having very little hope of paying off its huge debts and giving some return on the shareholders' money. To some extent this situation was the result of good negotiation by the Botswana Government. The agreement specified that the money borrowed by the Botswana Government to pay for the infrastructure associated with the mine, including water, electricity and the railway spur, would be guaranteed by the foreign shareholders (mainly the two big mining groups Anglo American and Amax). This meant that if the mine had closed the shareholders would have had to pay off not only their own debts but also the Botswana Government's debts. The Government was also lucky in that one of the shareholders, Anglo American, was deeply involved in the very successful diamond mining projects in Botswana, and so had an interest in good relations with the Government. A second piece of luck was that the foreign shareholders had complete financial responsibility for the copper-nickel project until the completion of "Phase 1". The latter was defined to include the start of the sale of sulphuric acid, a by-product of the refinery, under contract to a foreign company. Because of a technical failure at the refinery, one of the main causes together with low metal prices of the project's losses, this part of Phase 1 became impossible to complete, leaving the full financial responsibility with the foreign shareholders for a number of years.

95. These two examples show that the advantages of government participation have to be compared with the risks involved. It

may be, of course, that in a bad period for a mining or other enterprise, the government may have to provide finance to keep a business going in the public interest, even if it is wholly privately owned. This has indeed happened in Zimbabwe recently. But it is much easier for a company to bring pressure on a government to support it, if that government is a substantial shareholder.

TNCs in the financial sector.

96. The financial sector in Namibia, as in many African countries both before and after the end of the colonial period, is dominated by a small number of foreign commercial banks. A number of complaints are normally made about the behaviour of these banks and the adverse way that it affects development and other national objectives. The importance of these criticisms is that the significance of banks is far greater than indicated by the amount of capital invested or the number of people employed in them. Banks have a major influence, by their lending decisions, on the speed and direction of national development. It seems certain that an independent government in Namibia will have to consider the same or very similar criticisms, and what financial reforms will be in the country's best interest. The experience of other African countries is relevant to these future decisions, especially as not all financial reforms directed at foreign owned banks have had the intended effects.
97. Among the many criticisms made of foreign commercial banks in Africa are:
- that they lend mostly to other TNCs, and to the non-African community
 - that they place their liquid assets abroad
 - that, in the colonial period, they were underlent
 - that they lend mainly short term, indeed mainly to finance foreign trade
 - that not enough credit goes to agriculture
 - that not enough credit goes to small-scale borrowers, rural and urban
 - that they are slow to localise their staff.
98. Before discussing what can and has been done to remedy these shortcomings, it is worth noting that some foreign bank practice is justified, and is in the interest of the host country. Thus

it is of real benefit to have a banking system that is regarded by depositors as a safe place to put their money; bank failures are very damaging to development, since financial intermediation enables a country to make better use of savings and liquid assets than it can when people hold gold for example; and the holding of notes means that saving is being made available only to the government, at the expense of those who borrow from banks. There have been very few bank failures in Africa (although there were a number in Nigeria in the early 1950s among small locally owned banks) and this is attributable to the size and, to some extent the caution, of the foreign banks. Nevertheless, there remain the disadvantages listed above; these are discussed below.

99. Bank lending to TNCs can be controlled by means of exchange control regulations limiting the amount that may be borrowed by foreign controlled companies, and by non-residents. In Botswana, for example, foreign companies may only borrow, above P100,000, up to the amount of capital they have brought into the country without special permission. In such a small economy, that gives the central bank a considerable amount of control over all lending, because of the dominance of a few large corporations. The rule is reinforced by the regulation in the Financial Institutions Act requiring banks to seek permission to lend more than 10% of their capital and reserves to any one customer, which covers both foreign and domestic borrowers, and so prevents the authorities losing control of TNCs which are partly sold to local interests. Local lending to TNCs can be limited by this means; in most cases the TNC can obtain alternative credit from abroad, so that this exchange control rule becomes a means of encouraging a foreign capital inflow. Less lending by local banks to TNCs does not necessarily mean that more will be lent to locally owned businesses and to local individuals. Commercial banks may simply accumulate additional liquid assets in the absence of what they see as a lack of creditworthy borrowers.
100. In Namibia a special factor is that many large companies - for example CDM - do not maintain their main bank accounts in Namibia

nor bring export proceeds back except to meet local expenses. Requiring all domestic enterprises to bank locally and bring in all export proceeds (possibly with specific exceptions at the discretion of the Bank of Namibia) would increase the volume of local deposits, the quantity of business attractive to TNC banks and Namibian foreign exchange reserves.

101. It was certainly true that commercial banks were at times underlent in colonial times, and that their excess funds were placed abroad, although there were also examples of TNC banks lending more than their local deposits. In the absence of local opportunities to invest liquid balances, the money must by definition be placed abroad. The issue of local Treasury Bills, or the opening of call accounts for commercial banks at a central bank, is sufficient to enable banks to invest their liquid assets locally; and they can easily be required to do so by the government. In Botswana, in the late 1970s, the interest that could be earned on Bank of Botswana call accounts was much lower than what the banks had received in the Johannesburg money market previously, and even further below what could be earned on loans. As a matter of policy, this latter gap was widened to encourage the banks to increase their lending locally; but the effect was negligible. The slack demand for loans from customers that the banks thought creditworthy, at a time of slow or zero growth in the economy, meant that the banks simply did not use their low yielding excess liquidity. This attracted some criticism. But once the country no longer had access to the foreign exchange reserves of South Africa, which occurred when the Bank of Botswana began operations, the excess liquidity of the banks reflected in part the foreign reserves of the country, and was needed therefore in case of a sudden change in the balance of payments. For this reason, it is not necessarily the case that underlending by the banks is against the national interest in an independent monetary system. In Botswana's case, a fall in diamond revenue in 1981/82 caused the banks to use up their excess liquidity very quickly.

102. The time profile, as opposed to volume, of lending by TNC banks

in Africa is even more difficult to alter. The banks maintain that their unwillingness to make long term loans is because of the short term nature of their liabilities. They claim that it would be unsound banking practice to make long term loans out of short term deposits. This reflects an unnecessary degree of caution for two reasons. The banks' short term deposits are the country's money supply, and a large proportion of it is therefore extremely stable. An individual bank might conceivably lose a large amount of its deposits to the other banks. This is rather unlikely; furthermore the money could either be borrowed back directly, or it could be borrowed from the central bank, one of whose functions is to support a sound bank against just this possibility. African economies in particular, and underdeveloped economies in general, are very vulnerable to outflows of cash, for example because of a fall in export receipts. But that is precisely why banks are required to maintain a proportion of their liabilities as liquid assets; the risk of decreases in deposits in the economy as a whole is the responsibility of the monetary authorities as part of overall macroeconomic policy. Certainly it would be dangerous if all the lending of commercial banks were to be long term and thus impossible to reduce quickly, but it is quite sound for them to use a larger proportion than at present (in most countries) of their liabilities for long term lending, however vulnerable the economy in question. Unfortunately, the prejudices of the managers of foreign commercial banks, especially British ones, are reinforced by the rules and operating instructions laid down by head offices, which makes it doubly difficult to induce bank managements to change their practices. This prejudice against mixing long term (investment) and short term (working capital) banking is shared by the World Bank and a number of bilateral development agencies. Therefore, after building up a medium term loan-wing within the (state owned, basically citizen managed) National Bank of Commerce, Tanzania felt it necessary to spin it off as a separate Tanzania Investment Bank to secure low interest, long term international and national agency credits which were unavailable so long as it remained a wing of the NBC.

103. The problem of insufficient lending to small scale businesses, and especially small scale farmers, is rather different. There are genuine reasons why this type of lending may be too risky, or too expensive in administrative terms, for formal sector financial institutions. Most small scale businessmen, including small scale farmers, are indeed high risk borrowers. Furthermore, the cost of lending to them is high, even if they do pay back (there is some evidence that small scale farmers have better repayment records than large scale farmers). The cost of appraising a small loan application is not proportionately smaller than the cost of appraising a large one. Small businessmen do not have such good financial records (if any) to show the bank manager. Small-scale farmers in particular tend to be further from banks, making it expensive to visit them. Small loans tend therefore to be unprofitable for a formal sector lender who has to pay salaries, keep proper records which can be audited, etc. On a \$500 loan, for example, with a 5 percentage point margin between the bank's borrowing and lending rates, the gross margin for the lender is only \$25; that is not enough to pay for one visit by the bank manager, if he has to drive a few miles in a Land Rover over bad roads, and leaves nothing for other administrative expenses and provision for bad debts.

104. These problems are undoubtedly compounded by the inability of expatriate bank managers to speak local languages and understand local society. There must be a number of local businessmen who could borrow successfully from TNC banks, but who remain unidentified by expatriate bank managers because they cannot distinguish between good and bad local loan applications. Bank managers in some small towns may have spare capacity, in the sense that their ability to appraise loans is not being fully used. They might, therefore, be able to do more lending at very low opportunity cost. But there is a limit, which would be quickly reached even in ideal circumstances, to the amount of additional lending that could be undertaken without subsidy for this reason. A large-scale increase in lending to small scale business, including farmers, does require subsidy. That is why all independent African governments have set up specialised

lending institutions to cater for small businesses and small farmers in particular. Many governments have also brought various types of pressure on existing banks to make them lend more to this sector.

105. The experience of agricultural lending banks has often been bad. In Zambia, for example, two consecutive banks have failed and been replaced: the Credit Organisation of Zambia, which lent K25mn and had a repayment record of less than 10% in some areas when it was wound up; while its successor the Agricultural Finance Corporation also failed a few years later. Both banks were given the near impossible task of operating along commercial lines, while also being expected to lend to large numbers of small scale farmers at relatively low rates of interest. Even with subsidised liabilities, in the form of soft loans and equity on which dividends are not required to be paid, it is hard for such banks to operate commercially.

106. One reason is that small-scale farmers are constrained in several ways: they lack not only additional finance, but also knowledge, markets, inputs, etc. A rural credit institution acting on its own cannot remove all these constraints; and the co-ordination of all the necessary services is possible but very difficult. Credit on its own nearly always tends to reinforce existing inequalities, in rural as well as urban situations, since the better off borrowers are better able to obtain and make productive use of credit, and cost less to administer. An interesting example of a government owned lending institution with a very good repayment record is Botswana's National Development Bank (NDB). During the period up to 1979, the NDB had negligible bad debts, but this was apparently achieved by being so cautious that it had negative real growth in its lending from 1975 to 1979. Since 1979, lending has increased rapidly (from P4mn to P22mn in two and a half years); it is too soon to know the result of this change of policy, but the evidence from elsewhere suggests that problems of unpaid interest and loss of loan principal are likely to occur.

107. There is probably a case for some sort of subsidised government credit institution. And an independent government in Namibia is almost certain to create one, or to extend the role of an existing institution. The lessons that can be learnt from experience elsewhere in Africa are: that too much can not be expected of credit alone, that high interest rates or subsidised administrative costs are necessary if small scale farmers and businessmen are to be reached successfully, that the bank will seek out the more successful if it is charged with operating in any way "commercially", that financial subsidy in the form of cheap loans tends to encourage the inefficient use of capital and tends to avoid the public scrutiny rightly undergone by other more direct forms of subsidy. The areas in which such a specialized, only quasi-commercial approach to medium and long term lending is usually needed are small scale agriculture, low and medium cost housing and - less clearly - small scale commercial and service enterprises. In the case of Namibia even large scale farming probably falls in this category, since the sector as a whole is making substantial losses (before subsidies) despite sub-subsistence wages and capital grants. While there are a Landbank, a building Society and a Development Corporation none is actually oriented to meeting African need and none appears to be very successful even in commercial terms.
108. As already noted, the question of the long-term lending (and equity stake holding) financial institutions is broader than that of small, high cost, high risk credit users. A case for at least one such institution - possibly with initial foreign bank participation in ownership and management - exists. Divisions within it could specialize in manufacturing, construction and mining; agriculture and fisheries; commerce and services; and buildings. The likely initial volume of business and scarcity of personnel suggest deferring setting up additional specialized sectoral investment banks.
109. The question also arises as to whether the TNC banks should be pressed into new forms of lending, and how this should be done. Alternatively, governments have tried to achieve their

objectives by creating new government owned commercial banks, or by taking over the existing TNC banks.

110. In Malawi, the Government forced the two big TNC banks to merge, with a majority of the shares taken over by the Government. The new bank, together with the other banks, was instructed to increase the proportion of its lending going to agriculture to 50%. Whatever the intention, the result has been a very rapid increase in lending to the estate sector, rather than to smallholders, with large numbers of the urban salaried class setting up tobacco estates with borrowed money. It has also - in conjunction with falling export prices - led to a wave of receiverships and of doubtful or bad loans on the banks' books.
111. In Zambia, the Government created a new commercial bank, intending to use it to transform the nature of bank lending in favour of locally owned businesses and farmers. Very quickly the Government realised that this would take too long to achieve ("we are a very young nation and we cannot wait" President Kaunda in his Matero speech, 1970), and announced that it would take a 51% share in the TNC banks. In the end, negotiations failed to reach agreement; the lack of enough local skilled personnel to take over from expatriates meant that the banks were able to hold out for better terms than the Government was prepared to offer.
112. In Tanzania, in similar circumstances, when the TNC banks threatened to withdraw all their expatriate staff, the Government was in a position to call their bluff. Including locally resident non-citizen Asian middle managers and expatriate personnel of three smaller banks, there were enough skilled personnel to operate the system even when the two main British banks withdrew their European personnel.
113. In Ghana, the Government also created a new commercial bank to challenge the TNC banks; the new bank found itself under great pressure to lend to Ghanaian businesses and to lend on easier terms, with the result that it was stuck with a disproportionate amount of the marginal lending, and political pressure to treat

its borrowers leniently.

114. In Botswana, there has been no suggestion of participation in the existing TNC banks; instead the Government has considered from time to time admitting a third foreign bank to the country, to increase competition and to have a different style of banking available from that of the two existing banks. A third bank was finally set up in 1982. One of the conditions imposed on the new bank was that it would set up a branch in an area without banking facilities. It is too soon to say whether the other objectives have been achieved.

115. Clearly, some countries have found that they can control their foreign commercial banks to their satisfaction without owning them. The powers of central banks are indeed very great. But if a government wishes to direct credit in a detailed way, as has been done in Tanzania, it is probably necessary to have complete control of the bank and its management. The question for a new Namibian government to decide is whether it wishes to retain the skills of the TNC banks in allocating credit, on what they consider to be commercial criteria. These criteria can be modified by broad government guidelines, enforced by means other than direct ownership of a majority of the shares, but at the risk that the results may not necessarily be those intended. Alternatively, the government might wish to allocate credit according to planning criteria, in which case ownership and day-to-day control is probably necessary. A different reason for government participation would be simply to share in the profits, which can be exceptionally high in a small country with a large mining sector (or in a post-independence boom). Local management will only be possible, though, if there is a large enough cadre of local skilled personnel, unless the government is willing to allow the banks to be run by the original managers - or perhaps some other TNC bank - under a management contract.

116. Concerning the creation of a new commercial bank, whether privately or government owned, not much can be expected of it in the short term. There would be a danger of it being stuck with

marginal and unprofitable lending; indeed, in order to establish public confidence, it might even have to be more cautious at first in its lending policies. In addition, it would take years for a new bank to build up a branch network, so that in the short and medium term there would be a tendency for it to concentrate its lending in the major cities. Meanwhile, the creation of new financial institutions does nothing to relieve the shortage of skilled local personnel; on the contrary, it tends to make it worse, as would the necessary creation of a central bank. Allowing an additional TNC bank to set up, assuming the market is large enough to attract one, could improve competition and introduce new lending practices, but there is not at present much evidence as to whether this actually happens.

117. In Namibia the likely departure of the Afrikaans banks at independence and the weakness of the local private bank might be seen as creating an opening for a nationally owned commercial bank. However, they will leave no trained citizen staff, few accounts and few loans. Indeed little more than premises, cleaning staff and - one may fear - bad debts. That is no foundation for a commercial bank; if one is to be created it must start from square one. As these banks are - with the exception of one town - not critical to Namibia's banking network, it might be more prudent to ask one of the major banks (Barclays and Standard) to open a Katima Mulilo branch and to let other businesses make their own choice among the two or three remaining commercial banks.

118. A special issue in Namibia is that one of the main banks operates as a series of branches of its South African parent, two relate to the South African (not the parent British) head offices of their groups and another group has branches in South Africa as well as Namibia. This could be resolved by requiring local (Namibian) incorporation, divestiture of branches in South Africa and routing of shareholding, management and personnel relations to the group's European head offices. Comparable restructuring proved fully acceptable to Barclays and Standard in Botswana after its independence.

119. On personnel, it seems the TNC banks can be fairly easily persuaded to set up training schemes. On the face of it, there is a big financial incentive for them to localise because of the high cost of expatriates. However, the local expatriate managers may see their interest differently from the interests of the management at head office abroad, so the progress of localisation has to be monitored.

120. A more general question relates to priorities, sequences and timing. The Bank of Namibia must be Namibian owned with Namibian, and Namibian hired expatriate, management from the start. Its success is crucial to macro economic and financial sector policy and control. Similarly the state cannot avoid reorganizing the Land Bank, Building Society and first National Development Corporation; and it cannot, realistically, expect that they will be of interest to TNCs, whether it wants their participation or not. Thus a case can be made out for initially permitting the main TNC owned commercial banks to operate without state ownership, but within a framework of financial laws and regulations monitored by the Bank of Namibia, and subject to strict requirements as to the training and promotion of citizen personnel.

General Conclusion

121. Mining and banking are not the only sectors - in Namibia or elsewhere - involving TNCs. However, they are important sectors which illustrate most of the general fiscal, financial, and participation issues, as well as several special to their own sectoral contexts.

122. Two general points require reiteration. The first is that, because personpower development is important, secondary and tertiary graduates - and places in training institutions - must be allocated to enterprises (including TNCs and joint ventures) as well as to the government and 100% state owned enterprises. A number of African states have been slow to adopt such a policy with the result that enterprise (including sometimes even public and joint venture enterprise) managerial and professional cadres have remained almost totally expatriate. This is conducive neither to government understanding of enterprises, nor to implementing control over enterprise activities. Nor does it help in building up national capacity to run the economy, including its directly productive, investible surplus, tax revenue and foreign exchange generating sectors.

123. The second is the importance of priorities and sequences (or selectivity and timing). To try to do everything that will be desirable over 10 years, at once, is likely to lead to failure by spreading resources too thin. This is as true of negotiations with and participation in, or takeover of, TNCs as in any other economic or social sector. The most important issues - and the operating areas of importance in which there is no realistic alternative to state action - need to be tackled first, and a base built up for acting more widely, as capacity and experience accumulate.

Part Four: The Negotiating Process

124. Negotiation is a process intended to achieve results corresponding to goals. Therefore, to be successful, participation in negotiation requires identification of (and prioritisation among) goals; collection and analysis of data (including, for a state, the probable goals and targets of the TNC); identification of initial, fallback and minimum targets derived from the goals and analysis and devising strategy and tactics for achieving an outcome at or above the minimum targets.
125. Clearly negotiations require personnel, knowledge collection and analysis capacity and their results depend on what relative bargaining power the state and the TNC have (in itself an objective for data collection and analysis). However, to discuss these in detail would take one well outside the scope of this paper. What is discussed here is a systematic approach to state - TNC negotiations; a factor often notable by its absence in actual negotiations (sometimes on the TNC's, but more frequently on the state's, side of the table).

Goal Definition and Articulation

126. Broad political economic and socio political goals are inherently political and form a context for, not a component of, negotiations with TNCs. However, their articulation and the formulation of specific acceptable targets is integral both to any overall approach to a cluster of negotiations (quite urgent in Namibia in the first years of independence) and in preparing for any single negotiation.
127. Goals are, as discussed in the introduction, broader than fiscal and financial. They include economic control at micro (enterprise), sectoral (e.g. mining, finance) and macro (national) levels. These are not totally distinct - a very large enterprise such as CDM has major impact on GDP (national production), exports, tax revenue, domestic funds available for

investment, wage policy, etc. Macro policy rests on sectoral, e.g. the ways in which national savings/surpluses are mobilized and allocated are both central to macro policy and a substantial component of financial institution sectoral policy. In addition to control development of citizen personnel and knowledge; diversification of production and of dependence on particular TNCs (e.g. if two more uranium oxide enterprises were to be established in Namibia as joint ventures with TNCs, a case could be made for picking partners without present major interests and from a country other than South Africa to reduce concentrated dependence on the Anglo-American/de Beers group); creation of "fadeout" provisions for increasing national involvement in all aspects of an enterprise (including ownership) and phasing out (or at least down) TNC participation are likely to be major goals.

128. Indirect fiscal and financial goals include - and in respect to new enterprises are often dominated by - infrastructure issues. If infrastructure is created primarily for an enterprise/project the overall fiscal/financial evaluation of the project should include the infrastructure. A tax and dividend gain of \$50 million a year on a mine cannot be viewed as attractive if interest and debt service on power, transport and water facilities for it are \$100 million a year of which only \$15 million is covered by sales to the mine and \$5 million by sales to third parties. However, it is also possible for enterprises to provide indirect benefits by improving the sales and financial flows of existing infrastructure and/or fully covering the cost (including debt service) of new infrastructure which has additional financially viable secondary purchasers of services. Enterprises generate some local purchases - including by their employees - albeit unless rigorously quantified (and in respect to the enterprise itself backed by specific contractual provisions) not too much confidence should be placed on indirect tax and enterprise surplus gains under this head.

129. One specific "indirect" issue is where the enterprise banks. If it deposits almost all its proceeds and pays almost all its bills

and dividends with a bank in the host country (as, it would appear, none of the three major mining enterprises in Namibia do today), this maximizes the domestic surpluses mobilized for use via the banking system, the overall foreign exchange reserves of the country and the general volume of banking business. (Or, to be more exact, it does so as long as, on balance, the enterprises are in cash flow surplus.) All of these are desirable and can be achieved by limitations on enterprise operations of external accounts - whether via general exchange control regulations or specific negotiations.

130. Direct fiscal and financial goals relate to the sum of taxation of the enterprise and its employees plus dividends (and interest if a state loan is involved). Evidently the sum needs to be related to how much state capital is required, how stable the revenue flow will be, how the state and TNC shares compare, etc. But the key issue is - at least from a state fiscal/financial viewpoint - how much, not what the individual components of the total are. Different ways of raising, and different incentive offsets lowering, projected future revenue are important as they interact, not in isolation - a fact both state and TNC negotiators often appear to overlook.

131. Because goals flow from basic national policy and because a balance among a variety of goals is needed for efficient results from negotiation, goal articulation and approval requires both coordination and political involvement. Both an overall position on broad goals and a final pre-negotiation detailed articulation of goals (and targets) should have cabinet level approval. This applies both prior to any overall negotiation/renegotiation programme and for any single negotiation which is large enough to be of national importance. By the same token, final contracts and related commitments should require cabinet level approval prior to ratification. For any one negotiation there needs to be a focal or co-ordinating ministry or department (which might be mines for minerals, finance for banks, etc., or might be finance or economic affairs for all cases if a special unit were set up for that purpose). To ensure a comprehensive, balanced,

technically sound approach however, a team is needed. E.g. for a major mine it would probably involve finance, economic affairs, mining, state mining corporation, central bank, attorney general's and manpower (manpower) development. Advice from bodies with specific concerns (e.g. health on safety and medical facilities, labour on union rights and working conditions, power and water corporation and water and power demand and pricing) is needed but broadening the basic team beyond a core group will make it unwieldy. In renegotiation employees (unions) are certainly a special concern body to be consulted and may be an appropriate core team member.

Data Collection and Analysis

132. Realistically in most negotiations, and many renegotiations, the initial detailed proposal, the basic data and the draft agreements come from the TNC side. This is not surprising as it - presumably - knows its own business, has a more limited set of goals and usually has far more analytical and legal capacity available than does the state. However, it poses a problem: to negotiate on TNC decided data, within the format of TNC developed proposals and inside the framework of TNC drafted contracts is likely to produce a result skewed in favour of the TNC, not one evenly balanced or particularly favourable to the state. For example the results of starting tax negotiations from a proposal which eliminates all import duties, exempts all expatriates of income tax, allows 50% initial allowance and 100% depreciation over two years, exempts dividends from withholding tax and makes all profits free of company tax for ten years are likely to be quite different from those starting from a normal tax regime (perhaps including excess profits tax) and discussing what exemptions or concessions, if any, might be acceptable.

133. Therefore, it is critical that the state side:

- i. check all data provided by the TNC;
- ii. acquire additional and cross-check data independently

- of the TNC (as well as asking for more data);
 - iii. analyse the data within a set of parameters embodying national objectives;
 - iv. test what different changes in the terms of the agreement would produce in respect to results - e.g. as to net tax and dividend revenues;
 - v. develop alternative wording for key contract clauses as well as acquiring expert interpretations of the meaning of initial and alternative wordings.
134. Among the fiscal and financial instruments useable are: basic company tax, royalties on output (unusual outside the mineral sector albeit they are worth consideration in respect of fishing), excess profits tax (e.g. a rate of 75% on profits above a level providing 25% after tax on net worth), withholding tax on dividends and on fees payable for technical - managerial - marketing services, indirect taxes on plant - machinery - inputs) land rents, local rates, miscellaneous taxes, income taxes on expatriate personnel (many of whom are on contracts specifying their after tax income), dividends, interest (on loans from the state). As noted, the net total is usually more critical than the structure - indeed a large number of charges many of which are small and uncertain is likely to be less productive than fewer, more clearly defined charges. Further, the interaction of taxes/dividends makes it critical to test the actual results of proposed changes by calculation since they are often not obvious. The tax base is often as important as rates, e.g. whether an initial allowance is granted on capital investment and over how many years fixed assets are depreciated. So too is ensuring that revenue is brought to book, i.e. providing some basis for determining that sales are made at reasonable prices (not 25% below market to TNC affiliates) and do cover all items transferred (not always true of secondary metals in concentrate sales).
135. In the initial stages of building up negotiating expertise and experience, most countries have found it useful to employ expatriates to supplement citizen data collection and analysis

personnel. In respect to highly technical and specialized data and analysis, a small country will probably need to hire specialized assistance for the foreseeable future - as do TNCs on specialized engineering, legal and local context issues. Where to hire is a complex question - international agencies (e.g. the Technical Assistance Group of the Commonwealth Secretariat and the United Nations' Transnational Centre), specialized consultancy firms, merchant bankers and individual consultants are all appropriate at times. What matters most is a combination of relevant expertise and experience combined with high standards of professional loyalty to clients. (For actual members of the state's institutions some commitment to the country and its goals is also highly desirable.) Good consultancy costs money - sometimes over \$1,000 a day per expert - not having it can cost more. Evaluating what is needed and the most cost effective way of getting it is an important aspect of preparing for negotiations. Both because of the cost of hired consultancy services and, even more because the core team are necessarily acting on critical, sensitive, national political economic issues, citizens should be involved in data collection and analysis from the start and building a basically citizen core team should be a priority in personpower development.

Target Selection and Tactics

136. The interim (pre actual negotiation) product of data collection and analysis is a set of national targets and instruments (e.g. taxes, ownership share, board members) for achieving them. These cannot usefully be seen either as the "minimum acceptable" or as a "take it or leave it" offer. What should be done probably involves:

- i. working out a "minimal acceptable" package (if not attained, no deal);
- ii. estimating what the TNC's minimum (without which it really will not conclude an agreement) is;
- iii. devising initial testing targets to define more

clearly what the limits of "ii" are as, on occasion,
a TNC will yield more than state negotiators expected.

137. It is usually useful to conduct an initial fairly rough run through of the entire set of proposals without making definite agreements on any point. This approach can: clarify facts and meanings, identify areas of basic agreement and serious disagreement; indicate which points seem most critical and which most negotiable to the TNC.

138. Actual detailed negotiation is not a science but a number of general principles apply:
 - i. initial offers or counterproposals will be debated so some leeway should be left by the state (and usually is by the TNC) for bargaining;
 - ii. when a particular topic matters to the state more than to the TNC it is worth pushing (and vice versa);
 - iii. in the presence of a probable bluff (e.g a threat to break off negotiations permanently which seems unlikely to be true) a counterbluff is often good tactics;
 - iv. make progress on at least some points - especially if one or two key issues are deadlocked and have to be set aside - or adjourn for a day or a month's reflection;
 - v. avoid open debate within the state team in the presence of the TNC (apparently obvious but a common error);
 - vi. beyond formal greeting, ministers should usually not be brought in until officials have gone as far as they can and only a handful of clearcut, major issues remain. For one thing ministerial time (to study detail or to negotiate) is limited and for another, if one wishes to change tactics or retreat from a mistaken offer, it is easier if senior ministers have not been personally and openly involved.

Diamond Marketing as a Case for Negotiation

139. Diamond marketing is critical to Namibia because in normal years about \$500 million of exports and over \$300 million of pre-tax surplus are generated by the diamond sector. Both are dependent on competent overseas marketing services and payment of an appropriate price (international wholesale less a reasonable marketing margin) to the Namibian producer.
140. The main Namibian goals in respect to diamond marketing are presumably to enhance export earnings and mine pre-tax surpluses (a major base for tax and dividend revenues). How to achieve this depends on marketing channels selected, charges accepted for services, influence on level of (Namibian) sales, independent checks on quality and value of stones sold.

Preliminary Data and Analysis

141. Diamonds are a special case of TNC mining activity, mainly because of the unique marketing arrangements available through De Beers' Central Selling Organisation (CSO). The discovery and mining of diamonds is itself specialised, requiring the skills initially only available from TNCs, followed by a long period of skill acquisition by local personnel. In this, however, diamond mining is similar in principle to the mining of other minerals. To date, one large diamond mine in Africa - Williamson's in Tanzania as a result of an intensive 1961-1974 programme - has been 100% citizenized.
142. In marketing, however, De Beers runs the world's only quasi-successful commodity buffer stock. For 60 years the CSO has bought about 80% of world output of gem diamonds into the buffer stock, and sold from it in such a way as to maintain a fixed price in the short run, with periodic rises. The agreements between the CSO and producers also allow for reductions in CSO purchases if required by market conditions. Producers then have the choice between maintaining output to be stockpiled nationally, on the one hand, and reducing production, and probably employment as well, on the other hand.
143. In the current recession, producers have had to cut back in this way. CSO sales fell from \$2.8 billion in 1980 to \$1.5 billion in 1981 and \$1.3 billion in 1982. While the CSO did build up its stockpile of diamonds, producers were also forced to stockpile or reduce output, or both. For example, Botswana's sales of diamonds to the CSO fell in 1981 to only 57% of the 1980 figure; during one three-month period, no sales to the CSO took place at all, forcing the country to stockpile all of its output during that time. CDM cut output from 2 million carats in the late 1970's to 1 million in 1982.
144. So the CSO marketing arrangement is part buffer stock and part producers' cartel. It is different from the commodity buffer

stock proposals put forward as part of the New International Economic Order, in that it is run by a private company for private profit. The company in question is also a major producer of diamonds. The question thus arises as to whether or not De Beers runs the CSO in a way that meets the interests of the other producers.

145. The De Beers near-monopoly of the market in rough diamonds clearly requires that the greater part of mine production be sold to the CSO in order for the CSO to be able to control prices. So the deal offered by the CSO to independent producers has to remain more attractive than any alternative marketing arrangement available, in order to prevent producers from choosing alternative marketing arrangements.
146. Some host country governments may at times be more interested in short term price rises than in the long term control of prices, especially where a diamond mine has a relatively short remaining life. In general, however, all producers have an interest in market stability even from a short run point of view. The recent (1981/82) crisis was mainly caused by too rapid a rise in diamond prices in the preceding years, a speculative boom which was bound to be followed by a relapse. This suggests that short term gains can quickly lead to losses, with the risk of a prolonged loss of market control and lower prices.
147. The evidence is fairly strong that some sort of buffer stock or cartel arrangement is necessary if gem diamond production is to remain profitable. Gem diamonds are inherently useless objects, which are bought (a) because they are pretty, and (b) because prices have been maintained for so long. There are many competing pretty objects, but few whose real value has been maintained consistently for so long, and whose price has increased faster than inflation for long periods. Any loss of confidence in the long-term continuation of this market control, could sharply reduce the attraction of gem diamonds to final buyers.

148. Nevertheless, producing countries are bound to be concerned about the fact that the CSO is dominated by a South African based company of great wealth and power with a predilection for great secrecy. The CSO reveals very little about itself; it charges a substantial commission on sales; it has a larger annual sales volume than the GDPs of small countries such as Botswana and Namibia, which is bound to create fear of an unequal bargaining situation; and it allows no producer participation at all in its marketing and other decisions.

Part Five - Taxation and Participation Options in Namibia:
Sectoral Notes on Financial Aspects

Introduction

149. The following notes are not comprehensive: adequate data do not exist to conduct such an exercise even if space permitted. Nor do they constitute either hard and fast recommendations or an agenda for action. Until the constitutional assembly and the government of independent Namibia have had time and space to set out their goals more completely, and in consultation with Namibians in Namibia, such an exercise would be rather presumptuous. In any event, even were SWAPO in a position to make a definitive detailed statement on which TNC's it wished to negotiate with, in which sectors, for what purposes and under what terms and conditions, it would hardly be in SWAPO's interest to do so. To lay one's bargaining hand face up on the table months or years before negotiations can begin (as opposed to indicating its broad outlines) is rarely a sound negotiating tactic.
150. However, we feel that data on the Namibian policy and on TNCs in Namibia as well as SWAPO's policy statements do allow us to identify key sectors and issues, for consideration in working out a strategy for independent Namibia. While neither complete nor definitive they may provide the outline of an agenda for reflection and articulation.

Some General Points

151. Fiscal and financial negotiations are enhanced by having a sound basic tax system, including - where appropriate - special provisions by sector (e.g. mining, hydrocarbons), and power for the Minister for Finance to issue special exemptions or enhancements when he deems them to be in the public interest. Among the elements of such a system are:

- i. a basic company tax (say at 50% of profits);
- ii. with a reasonable depreciation schedule (say 3-5 years for vehicles, 5 to 10 years for plant and machinery and 20-30 for buildings and civil engineering);
- iii. perhaps with provisions for initial allowances ("extra" depreciation, i.e. a tax waiver of 50% of the allowance) issuable at the state's option when specified conditions are met;
- iv. a withholding tax covering all external payments of dividends, interest, royalties, rentals, management and technical fees and similar items (perhaps at half the company tax rate or over a range from a quarter to a half);
- v. a progressive personal income tax applying to all income earned/received in respect to employment in Namibia wherever and by whomever paid (with provisions for exemptions, e.g. in respect to grant funded technical assistance personnel);
- vi. a coherent set of import duties (basically for protection or as a deterrent to the use of foreign exchange) and of sales taxes (on imports and domestic product - designed primarily to raise revenue) with no automatic zero rates for capital goods or enterprise operating imports, but with the possibility of exemptions;
- vii. a minimum number of nuisance (to both the collector and the payer) taxes such as stamp duty on cheques or authorized capital;
- viii. perhaps selective royalties (rents related to extraction) for the use of natural resources (e.g. minerals, fish, trees, perhaps water);
- ix. arrangements allowing for additional profits taxes or analogous quasi-royalty arrangements to capture the bulk of the rent element and of genuinely windfall gains, e.g. from major oil discoveries, metal price booms or monopolistic marketing positions.

152. The value of a general system - with special provisions for unusual sectors - is to have a clear starting point (and one yielding substantial revenue) for negotiations and an understandable (to TNCs and to Namibia) fiscal strategy. The value of the power to make exemptions - or enhancements - is that, in the case of large projects and enterprises, it is often necessary to bargain on the exact levels and makeup of fiscal charges, to achieve an acceptable TNC DCF and an acceptable national DCF and net revenue flow.
153. Two related issues are determining accuracy of books and appropriateness of prices paid/received in external transactions. As suggested earlier, a domestic (ideally public sector since any other would in practice be a TNC branch) audit corporation, as auditor for major enterprise books, could help on the first point and various special mechanisms, including, perhaps, a metal marketing enterprise and a diamond rating and valuation office, could contribute on the second.
154. Other aspects are sectoral or sub-sectoral. The most critical sectors in respect to possible TNC involvement, negotiation and renegotiation are likely to be mining, banking and finance, manufacturing (including meat and fish processing), petroleum importation and distribution and general external trade.

Mining

155. This sector is critical because in a normal year it can generate \$800-1,000 million of exports and \$400-500 million of pre-tax investible surplus. Thus the basic foreign balance, domestic investible resources and tax base of independent Namibia will be dependent on it. Further, the sector has both relatively good medium term prospects for expansion and a need to reinvest, explore and open new enterprises to avoid going into decline. Substantial numbers of skilled, professional and managerial personnel are required (today 99% European) as is a significant

body of technical knowledge. Exploration is expensive and bringing new projects into production very expensive indeed (up to the \$1,500 million level). Profits - on average - have been high but are very unstable from year to year and, at least in base metals, consecutive years of pre-tax deficits are real possibilities (e.g. Tsumeb 1981-1982). Past taxes have been low and (South African) state participation fairly low.

156. This background suggests several major initial targets:

- i. maintenance of output;
- ii. reinvestment, exploration and development to sustain and expand future output;
- iii. training of Namibian personnel to fill skilled, professional and managerial posts;
- iv. maintenance (and future expansion) of operating profit;
- v. expansion of the state's share in profits from taxes and participation in ownership;
- vi. buildup of a significant state ownership position - probably either through joint ventures or through selective acquisition of 100% ownership initially with a TNC hired as a contract manager;
- vii. initial concentration on renegotiation in respect to the three dominant mining enterprises - CDM, Rossing, Tsumeb - phasing into negotiations on new projects (or explorations);
- viii. nationalisation of all mineral rights and renegotiation of allocations of rights to extract to companies;
- ix. developing technical capabilities (in a Ministry of Mines and, probably, a state mining enterprise) in respect to geological survey and evaluation, project analysis and valuation of mineral, concentrate and metal exports.

157. In respect to base metals the problem of whether or not to institute substantial royalties needs attention. Because profits

vary sharply (and in some years are negative) royalties would tend to stabilize state revenue. But to do so significantly, they would need to be 15-20% of gross sales which would almost certainly deter mining of lower grade ore and could lead to premature abandoning of existing mines, and of negotiations for new mines. A stronger case exists for additional profits taxes to capture the rent element in high profits. However, for enterprise DCF to remain attractive in cyclical mines "standard rate" profit not earned in bad years may need to be "carried forward" as earnable in subsequent good years.

158. A new tax/participation arrangement with the dominant company - Tsumeb - would need to be negotiated. A key issue would be guarantees as to exploration and new (replacement) mine development - probably desired by Anglo as well as in Namibia's interests. A special problem may be Otjihase mine - now part of Tsumeb - which is a post 1966 mine, i.e. established without any agreement between the TNC (Johannesburg Consolidated) and any body with internationally recognized de jure authority over Namibia.
159. The minor mines in the sector are not individually critical. Some - e.g. SWACO (also ultimately Anglo) - might be renegotiated, with conditions on exploration and development, either with present owners or new external ownership and/or technical partners. Presumably the presently RSA state owned mines and the other post-1966 mine (Oamites - formerly Falconbridge Nickel) will need new arrangements including at least managerial and technical partners.
160. Uranium consists of one major (and highly profitable) company (Rossing), one partly developed project (Langer Heinrich) and three relatively proven deposits. The immediate concern is Rossing. Presumably the RSA minority equity stake (which, however, appears to hold major voting power) will be acquired by Namibia. Because Rossing is a (one might almost say the) post 1966 mine, but one Namibia could not begin to operate itself, decisions on how to approach overall ownership and management are

crucial. The options are renegotiation with RTZ (present majority shareholder and operator); ousting RTZ and securing a new ownership partner; ousting RTZ and arranging a management and technical contract.

161. Because Rossing's capital has been fully recovered and its profits are likely to remain high, a case exists for some form of additional profits tax - say on past normal company tax, profits in excess of 25% of the historic (or 15% of the depreciated replacement) value of net assets employed.
162. How to sell uranium and to whom is both a revenue and a geopolitical question. Term contracts to major electricity producers will probably yield the most predictable and stable profits. Spot market sales will maximise profit in good years and minimise it or may lead to losses in bad years. Specialized expert advice on the approach to be used - which might be a mixed one with a base of term contracts and the balance sold spot - will be needed. Selling openly to commercial (not military or quasi-military) users may be important to Namibia to avoid the suspicion that tends to surround uranium oxide producers whose sales patterns are not open to inspection.
163. A serious review of how and when to proceed, on which additional uranium ventures, is a matter of importance and some urgency. One - Langer Heinrich - is likely to be abandoned by its present owners (Gencor/Federale Mynbou). At least one is likely to be promoted by its discoverers (led by Anglo who have taken care not to develop it before independence) as soon as medium term uranium oxide market prospects are firmer. Namibia needs to be able to take a reasoned view of the sub-sector, not negotiate piecemeal on individual proposals.
164. Diamonds are CDM. Here the recent Jwaneng negotiations in Botswana suggest that very major tax, participation, personnel and local purchase gains can be achieved. The problem is to negotiate carefully to achieve the best possible - not just a significantly better than present - deal. Diamonds have stable

enough and high enough profits to make a royalty's negative impact on production fairly low - but also to raise doubts as to how much it really would stabilize revenue. As with uranium and base metals, an additional profits tax or rent resource tax seems indicated. Further exploration and development of the apparent upstream discoveries to sustain output in the 1.5-2.0 million carat range, beyond the end of the century, is an item which should be on the renegotiation agenda. The case for and against the continued use of the CSO - but on renegotiated terms and with independent sorting/valuation - needs to be thoroughly evaluated.

165. Coal requires the building up of a Namibian data base on how to tackle the sector. At least 100,000 tonnes have a domestic market if they can be transported at reasonable cost. When the Botnam (Trans Kalahari) railway is built presumably either Arandis or Aranos coal could be economically carried to it on a branch line for export. The volume and economics of either of these options or of a combination, require study. A TNC is unlikely to be interested in or - as an equity partner necessary for - the domestic project, albeit Tsumeb as a major user might be interested in acting as a manager. For a large (2.5 to 5.0 million tonne) export oriented mine at least a managerial, technical, marketing partner would be required.
166. A related issue concerns the Trans Kalahari railway itself. If Shell is to be involved in its finance and operation from the Botswana colliery to the sea, then negotiations between Namibia and Shell on route, Namibian investment required (if any), control over traffic regulation and tariffs for non-Botswana (Shellcoal) cargoes, personnel development, etc. will be a matter of urgency. In this respect a coordinated position with that of Botswana would appear to be critical.
167. There are two known liquid and gaseous hydrocarbon prospects in Namibia. Neither is within years or, probably, scores of millions of dollars of being commercially proven but both may be attractive enough to attract TNC interest once Namibia is independent. To negotiate effectively Namibia will need far more data than it now has on either.
168. The first is the "greater Etosha Basin" covering most of Northern Namibia (and part of Southern Angola). Evidence apparently justifying initial seismic surveys and - with luck - consequential drilling exists. The time span from initial seismic to even moderate (say 1 to 2 million tonnes a year) production - assuming success - could well be ten years and the cost in excess of \$500 million. Here Namibia may wish to seek to place exploration risk on TNCs and retain rights to "buy in" at the development stage as well as to combine royalties, profit tax

and some form of additional profits tax to secure a substantial cash flow from any viable field and up to 90% of profits from a major field. Experience elsewhere suggests this is not impossible - albeit it may be very difficult until the oil market's future prospects are clearer.

169. The second prospect is the offshore natural gas discoveries roughly in the Oranjemund sub-oceanic delta. The fact that South Africa ceased drilling after two gas finds strongly suggests that oil prospects are not very bright. However, the gas may be commercially viable - proof would require additional drilling. Unless a very large field (say 5 to 8 trillion cubic feet) suitable for liquified natural gas production (which would require \$5,000-8,000 million investment) is proven, the plausible uses are ammonia-urea, methanol and power production. At present, hydroelectric power would appear likely to be more economical for Namibia and the methanol market is highly uncertain. If field viability is proven - perhaps using soft loans from an international agency convertible into harder ones only when and if commercial production exists - detailed analysis to choose a product and a technical-managerial-marketing partner (almost certainly a TNC) would be required. Overall field and plant plus infrastructure cost would probably be of the order of \$1,000 million.

Banking and Finance

170. Much of this sector is unsuitable for (e.g. Central Bank) or unattractive to (e.g. rural, housing, small business term lending) TNCs. Another portion (e.g. investment bank lending to medium and large enterprises) can be organized with TNCs or - perhaps more plausibly - with national and international development agencies (e.g. Commonwealth Development Corporation, Germany's KfW, SIDA, World Bank). At one level this suggests that the main area of concern is commercial banking and at another that very substantial calls on Namibian personnel (plus directly recruited and technical assistance expatriates), finance

and institutional/managerial capacity will be required in aspects of the financial sector for which TNC involvement is not a live option.

171. As discussed earlier, the primary importance of the financial sector lies in its role in collecting/mobilizing and lending/allocating savings (surplus). It is also critical to controlling the external balance. In addition it does generate substantial surpluses itself (and can on occasion make substantial losses). Thus the probable goals in relation to this sector - and to any TNC involvement in commercial banking - turn on effective macro, sectoral and microeconomic management with special reference to mobilisation, allocation and control of overall savings and domestic credit levels and to managing external transactions and reserves. Direct public sector revenue - from taxation and or participation - is a significant but, probably, in this sector secondary goal. Personnel development is both part of a general economywide goal and a means to increasing sectoral efficiency and the capacity of Namibians to maintain and increase that efficiency themselves.
172. The commercial banking subsector is dominated by Barclays and Standard. The other TNC bank (Dresdner), the Afrikaaner banks and the quasi-local bank are peripheral.
173. The main issues in negotiation/renegotiation are likely to include:
 - i. maintaining a smoothly operating commercial banking system and expanding its operations in rural areas;
 - ii. accepting broad policy direction and professional regulation by the Central Bank;
 - iii. incorporation of Namibian business as Namibian companies with substantial equity capital and relating to the London - not Johannesburg - head offices;
 - iv. development of personnel training and promotion programmes for Namibians on an acceptable scale and

- at an acceptable pace;
- v. serious efforts to develop access for African businessmen with sound prospects to credit and to financial advice;
- vi. cooperation in the physical operation of exchange control - including limits on bank balances abroad;
- vii. ending the present placing of balances at no or negligible interest with head offices and the payment of large, non-detailed head office expense contributions which appear to reduce taxable profit in Namibia by up to 75%;
- viii. exploring the desirability and timing of government equity participation of the order of 50-60% and of merger of the Namibian operations of Barclays and Standard.

Evidence elsewhere in Africa since 1970 suggests that very substantial gains could be achieved in negotiations on this list.

174. The establishment of a state owned commercial bank requires further study:

- i. it is hard to see how it could contribute very much to attaining key sectoral goals in under five years although it might have greater long term importance;
- ii. to be effective from establishment it would almost certainly need to have a TNC bank minority partner - possibly one with African experience but no prior Namibian legacy, e.g. Bank of America, National and Grindlays, Nederland Algemene;
- iii. it would require substantial government allocation of personnel, policy attention, finance and business to become significant and would, initially, have relatively low profits.

175. In the field of insurance there is not enough data to analyse the sub-sector. However, one evident goal is to limit the outflow of funds. This might involve:

- i. requiring existing companies to match Namibian assets and liabilities (especially in respect to life insurance);
- ii. creating a state owned (or majority owned) insurance corporation with technical, managerial and perhaps minority equity participation by an international insurance broker or an established national insurance corporation (e.g. India or Tanzania);
- iii. once the national corporation had built up its capacity (and citizen staff and agents) and the government had more data on the sector, consider giving the company a monopoly in some lines of insurance.

Manufacturing

176. Manufacturing is a rather non-homogenous sector. Three sub-sectors are pre-export processing (primarily of meat and fish), local market oriented production and regional market related manufacturing. Goals include structural diversification, increases in foreign exchange earnings, enhancing exports and increasing Namibian middle and high level personnel development. A special goal is maintaining the viability of the ranching sector. Major tax or profit revenues in the short run appear unlikely.
177. Only enterprises which are large by Namibian standards will be of interest to TNCs. Equally, probably they will be the only ones in which open market purchase of technology, securing of initial expatriates directly or through a technical assistance agency, and fairly rapid Namibianisation, pose major problems.
178. Meat packing, freezing and tinning and fish processing (meal and oil), tinning and freezing are the main pre-export processing industries. Without them the continued existence of the beef ranching and fishing sectors would be placed in jeopardy. Profit levels - especially soon after independence - are likely to be

modest. Existing owners (with the new French - ENOK meat packing joint venture an exception) are not TNCs but South African corporations whose continued presence after independence is very problematic.

179. In respect to meat packing and freezing adequate capacity to handle probable Namibian offtake to - say - the early 1990s exists. The problem is identifying partners (technical or ownership) with operating and export competence on terms which do not impose undue financial burdens on either the budget or the ranching sector. Possibilities include a TNC not previously involved and a national meat packer (e.g. that of Botswana). A subsequent possibility for a TNC or joint venture project would be tanning of leather and (later) production of shoes from hides and skins rather than exporting them raw.
180. The fish tinning and processing situation at first glance appears comparable to that in respect to meat. Indeed the first order difference is vast overcapacity. If, however, South Africa remains in occupation of Walvis Bay (site of all but one plant), revival of the Namibian industry will require a new plant. Potential partners - including in marketing - need further exploration with Scandinavian and Peruvian firms possible alternatives to the better known TNCs.
181. A related venture is Metal Box's currently closed tin (can) plant at Walvis Bay. Its reopening (or, as with fish processing, creation of a new plant) may be important if South African supplies cannot be depended on. An interruption in supply would have catastrophic effects on meat and fish tinning enterprises. The evident owner or partner - partly because international acceptability of tins is critical - is Metal Box. However, as the project is not likely to have a high DCF (except at prices crippling the users) a technical/managerial contract with Metal Box, or another major tin manufacturer for a state owned plant, may be the only practicable alternative to importation with its risks of supply interruption.

182. Much more data is needed to allow serious analysis of what substantial domestic market industries would have plausible DCFs or net contributions to GDP. The same applies to whether TNC ownership or participation would be practicable, necessary and/or attractive. The main short term target therefore is data collection and analysis - presumably in a Namibian institution, initially using expatriate experts while training Namibians both in formal courses and on the job.
183. A possible exception is cement. A five year old study, by a South African firm, apparently showed an attractive DCF; and the political risk of non-implementation, which would mean continued dependence on imports, was considered high. Because the ratio of actual to capacity output is highly dependent on artisanal and managerial capacity, early establishment of a cement plant would probably best be done via the joint venture route, with a firm (not necessarily North Atlantic or Japanese) with substantial experience in producing in the tropics. However, if - as anticipated - Angola develops substantial low cost cement exports the priority for (as well as the DCF on) a Namibian plant would require reexamination before a firm decision is taken. Similarly the potential for sales to Botswana should be explored since cement has substantial economies of scale up to a size beyond Namibian demand and, when the Trans-Kalahari is built, a 200-400,000 tonne Namibian plant might be competitive in Botswana.

184. Another probable exception is light engineering including machinery and vehicle maintenance, assembly and spares production. Presumably the present degree of dependence on South Africa will be seen as economically as well as politically imprudent after independence. What expertise exists in Namibia is largely related to mining and is held by settler or mining firms. TNCs are unlikely to find the sector - because of the small size of individual projects - attractive. Options which might be explored are branches of (or joint ventures with) Zimbabwe enterprises, involvement of mining companies in maintenance and other activities for sale as well as for own use, technical or ownership partnerships with vehicle manufacturers (perhaps tied to standardisation of vehicle types imported), and collaboration with Scandinavian small scale industries backed by Nordic assistance.

185. The same considerations apply to regional as to domestic market manufacturing. In addition, account would have to be paid to the state of SADCC (Southern African Development Coordination Conference) industrial and trade sector coordination and forward planning at the time of Namibia's independence.

Petroleum

186. The goal in this sector is to ensure continued supply at import and internal distribution levels of petroleum products and to do so at the minimum possible cost (especially foreign exchange cost). The present system is dominated by South African subsidiaries of TNCs using high cost South African refined products sources which - on experience elsewhere in the region - would be subject to delays and interruptions after independence.

187. There is no technical reason why a state petroleum products purchasing and importing company (buying on the spot market or - say - by contract with Angola) plus one or two joint venture distribution firms (possibly with TNCs, like AGIP, with African experience but no Namibian legacy) could not be created.

However, experience in Tanzania suggests that this approach - while profitable - takes time to build up a smooth operation and demands substantial working capital, personnel and policy attention. Thus it might be seen by Namibia as a medium rather than a short term approach.

188. In that case negotiations with one or more existing distributors (say Shell and BP) might turn on:

- i. incorporation of Namibian subsidiaries relating to London or The Hague not Johannesburg;
- ii. sourcing imports from non-South African refineries at prices which could be demonstrated to be competitive;
- iii. retaining a government right to supply refined products imports, if it could negotiate medium term contracts at prices or on terms the TNCs refused to match;
- iv. requiring major personnel development programmes;
- v. increasing storage capacity (and replacing the existing capacity of Walvis Bay at a new port if South Africa continues to occupy Walvis Bay).

189. There is no economic case for a refinery for Namibia alone. If a joint Namibian-Botswana-Zimbabwe refinery project (presumably with a technical and perhaps ownership partner such as ENI of Italy or the Angolan or Brazilian state oil companies) proved negotiable an attractive DCF might be achieved. Otherwise coordination with Angola - perhaps minority participation in an Angolan refinery - would seem likely to prove more prudent.

External Trade

190. Exporting has in fact been covered in relation to mining and manufacturing with the exception of karkul and wool. In the case of karkul the pre-export processing is negligible, the Namibian based marketing cooperative is a settler body and the near monopoly export buyer (Hudson's Bay) has disastrously failed

in effective promotion of karakul resulting in both volume and price falls. Data and analysis toward a potential replacement structure - presumably involving a firm with comparable trade experience at the international marketing level - is the immediate requirement and one which needs to be completed prior to independence.

191. In respect to imports a rather different situation pertains. As a result of the common tariff area with South Africa, various administrative arrangements and the highly oligopolized nature of South African business, over 60% of Namibia's imports are from, and perhaps 90% via, South Africa. Very few (if any) Namibian import houses have the capacity to identify low cost supplies on a global basis as opposed to ordering from or via South Africa. From a Namibian perspective continuation of this pattern lacks economic (South Africa is not, in most cases, the lowest cost source), geographic (Namibia has ports) and commercial (i.e. local value adding in importing/wholesaling) logic in addition to its defects of contributing to massive, unilateral dependence and creating opportunities for economic disruption.
192. The probable goal in relation to this sector is to secure dependable, low cost, diversified sources of supply for major imports. The gains would accrue predominantly to users - including the state - rather than as importer profits. The probable main revenue gain to the government would be that the lower the basic import cost, the higher the rate of indirect tax consistent with any level of user prices and therefore the easier to raise revenue without injuring consumers' standards of living.
193. There is no way to create capacity for global sourcing (buying from low cost sources wherever located) rapidly other than by involving a trading firm which already has that capacity. Probably such a firm would want a joint venture and accept a personnel training programme to ensure that it did receive enough business to make a significant profit. Probably two or three joint ventures (perhaps one with the Scandinavian Wholesale Co-operative Federation or a similar body, one with a European

trading company and one with a Japanese or South Korean trading house) would be better than one, partly to ensure genuine global knowledge and partly to encourage competition.

Part six: Conclusion

194. There are a number of reasons why states seek to negotiate with TNCs to establish, maintain or expand wholly owned or joint venture enterprises in their territories. Among the more important are fiscal and financial gains largely achieved through taxation and participation in ownership.
195. TNC's are interested in group survival, profitability and expansion. Their chief technique for evaluating proposed projects (including renegotiated present arrangements) is Discounted Cash Flow, that is the present value of their projected future net cash flows from the proposed project (or renegotiated contract or enterprise).
196. Because fiscal and financial issues turn on dividing the available surplus they necessarily involve conflicts of interest between TNCs and states. In principle agreement can be reached - at least in respect to fiscal and financial aspects - if, when minimum state fiscal and financial targets are met, the DCF to the TNC investor exceeds his cutoff rate. Similarly, in such a case, if the DCF to the investor is at his cutoff rate, then the fiscal/financial return to the state will exceed its minimum targets.
197. This suggests that at least so far as fiscal and financial aspects go, negotiations (from a state perspective) should have two phases:
- i. testing whether it appears likely that state and TNC minima can be met at the same time;
 - ii. seeking to push the TNC as close to its minimum as possible ensuring the maximum share of fiscal/financial surplus to the state.

This - like the previous paragraph - oversimplifies in that some fiscal/financial gains (or costs) to the state do not represent costs (gains) to the TNC and vice versa. Correction to take

account of this may in any actual case make agreement more (if each side can achieve gains not viewed as costs by the other) or less (if costs to one not seen as gains to the other dominate) likely.

198. For negotiations to approximate this model, the state must determine its goals first, from that point articulate them both to sectors and the use of TNCs and finally to particular project/enterprise cases. The process also requires adequate data and analysis to identify particular targets (in this case fiscal and financial) with instruments for achieving them in practice and tactics for achieving acceptance of the targets and/or instruments by the TNC negotiating party.
199. Projects, enterprises, TNCs and negotiations need to be perceived together as well as individually. This is necessary to set priorities - whether for direct ownership and management without TNC involvement, for activities to be kept operating efficiently, or for trading off fiscal and financial benefits from using an already established TNC against diffusing dependence and perhaps increasing general bargaining strength by choosing one with no existing operation in Namibia. (The last of course requires knowing group memberships - substituting Minorco for Charter or De Beers or SWACO or Consolidated Goldfields or Tsumeb or Johannesburg Consolidated or CDM or Debswana or Anglo American is not diversification as all are among the major Anglo American group members.)
200. While it is premature to seek to identify all issues likely to arise in negotiations/re negotiations between independent Namibia and TNCs, enough is known to list a number of the key ones for major sectors and, in some cases, individual enterprises. Similarly while it would be presumptuous for anyone at present to seek to specify the goals independent Namibia will adopt in great detail or completeness, SWAPO policy and strategy are clear enough to make certain broad identifications. In turn these give some indication of the alternative approaches to TNC negotiation/re negotiation likely to be seen by independent

Namibia as worth serious consideration.

201. Because both the importance and characteristics of particular sectors vary, Namibia's goals in respect to them, its alternatives to TNCs as partial means to attaining the goals and the practicable parameters for negotiation/renegotiation (perhaps especially in respect to financial and fiscal considerations) differ substantially from sector to sector and even within sectors. Among the sectors in which TNCs and negotiations with them are likely to be most important are mining, finance (commercial banking), pre-export processing (and export marketing) and importing. The notes presented above do not purport to be either a summary of any existing Namibian position nor a set of recommendations. They are a possible outline of an agenda for Namibian dialogue, not an agenda for action through literal translation into negotiation.

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APPENDIX A: BRIEF INTRODUCTION TO SOME PROJECT APPRAISAL TECHNIQUES

Pay-back (or cut-off) period

1. This is probably the crudest criterion still used to decide whether or not to invest in a project. A period is chosen over which the money invested must be fully recouped - usually 5 years or less. If the value of the original investment is recouped in that time, the investment goes ahead; if not, it does not. A recent example of the use of this method was cited by a firm of consultants which had studied investments made in energy conservation measures in British industry. The finding was that 'more than half the firms surveyed were looking for energy savings projects with a pay-back period of less than three years'.
2. Let us consider three imaginary projects and, applying pay-back period, see which would be approved and how they would be ranked.

Example One

Years	0	1	2	3	4	5
Project A \$	-100	60	40	30	20	0
Project B \$	-100	10	30	40	40	60
Project C \$	-100	0	20	20	40	80

In all three projects, the designation '-100' indicates an initial investment (= an expenditure) in year 0, while the positive figures further along the rows indicate additions to net revenue accruing from the initial investment.

3. If we apply the 3 year pay-back criteria, only Project A would be approved. If we extend the permissible pay-back (or cut-off) period to 4 years, then Project A and Project B would both be approved. And if we extend the permissible pay-back period to 5 years, then all three projects would be approved. Therefore the ranking of the projects according to the pay-back criteria would be (1) Project A, (2) Project B, (3) Project C.

4. Judging the pay-back criterion, we might summarise

advantages:

- simplicity
- built-in safeguard against risk. If one can get back all the money invested within 3 years, the risk of making a loss is small.

disadvantages:

- profit streams after the pay-back period are ignored
- time-order of profit flows within the period is also ignored
- method is likely to lead to underinvestment
- difficult to make full provision for taxation and capital allowances, since some of benefit of latter is likely to accrue after pay-back period
- no account taken (normally) of inflation.

Gross return on investment

5. This is an almost equally crude measure. The method sums all incremental profits arising from the investment over the duration of the investment and arrives at a ratio by dividing that sum by the value of the original investment. The ratios for the three projects given in Example One would be Project A 1.5; Project B 1.8; Project C 1.6; and the ranking of the three projects according to this criteria would be B, C, A, quite different from the pay-back order of A, B, C.

advantages:

- simplicity
- method takes all incremental profits over the whole duration of the project into a account

disadvantages: - method fails to take account of the timing

of the benefits or of how long it takes to receive total benefits

- to be a better guide, taxation (including the effect of capital allowances) would need to be taken into account; also the effects of inflation. These factors could radically change the ratios, and their ranking.

Average return on investment

6. This is a mathematical variation of the Gross Return on Investment criterion achieved by expressing the surplus of incremental revenue over investment cost over the whole life of the project as an average annual percentage of the initial investment. Thus, reverting to Example One, we get:

	<u>surplus over</u> <u>investment</u>	<u>project</u> <u>life</u>	<u>average</u> <u>% return</u>
Project A	50	5	10
Project B	80	5	16
Project C	60	5	12

7. The ranking exhibited (B, C, A) is, in this example, the same as that derived from the previous method of appraisal, but this need not have been so had the project lives of the three projects differed. Notice too that in this particular example, the period of construction is not counted as part of the project life - although funds were presumably being expended during that year. But we have included the fifth year of Project A, although the investment made no contribution to incremental revenue in that year. Both these points illustrate what we were saying about the selection of measurement 'conventions'. It would have been legitimate to have used alternative conventions, as is sometimes done, in which case the numerical results would have been somewhat different.

advantages: - the method does at least take the project

life into account

- the rate of return in this form allows for better comparability between projects, and an easier comparison with the costs of borrowing money

- disadvantages:
- no account is taken of the time pattern of net expenditures and revenues, thus the fact that money received earlier is worth more than money received later is ignored, as is the fact that money spent later on a project costs less than money spent earlier
 - inflation is not normally fully taken into account.

DCF (Discounted Cash Flow) rate of return analysis

8. In practice, because of the shortcomings of the other methods cited, most major TNCs now use some variation of the DCF (discounted cash flow) or IRR (internal rate of return) type of approach. This technique is a good deal more difficult than the other techniques we have considered, but it is also a great deal more elegant and powerful and in particular takes care of the differing time patterns of expenditures and receipts that are largely ignored, or at least inadequately dealt with, by the earlier techniques. All other things being equal, a company using DCF rate of return analysis would be likely to make better use of its investible funds than a company using cruder methods.
9. It is not possible to explain the operation of DCF analysis fully in a few pages. Those who are already acquainted with the technique are unlikely to find anything new, while those who are not will almost certainly find the explanation inadequate, and will need to augment this explanation by studying a textbook on the subject. Nonetheless, some description of the principles involved, a simple example and a discussion of how this technique differs from others may be useful, because the commonness of its employment by TNCs requires that those who negotiate against them should be equipped to understand the processes involved.
10. The technique is unusual in that it looks at actual projected cash flow rather than at some conventional measure of profit. This means, for instance, that no provision is made for the depreciation of capital equipment used up in production as would be the case for traditional measures of profit, whether for tax or for ordinary commercial purposes. These traditional measures are still required for company reports, to determine dividend policy, and (in the case of capital allowances) for the calculation of tax liability. It is in the appraisal of future investment projects that they have largely been replaced.
11. But the mention of 'cash flow' raises the question "Cash flow to whom?" And to that question, at least three different answers

can be given. First, there is the cash flow profile of the project itself -- ignoring for the moment liability for taxes, or payments of interest and repayment of loans to lenders. We may call that the project rate of return. Second, if we subtract all the taxes estimated to be payable to the government and add in all the bonuses or subsidies that will be receivable, we arrive at a project rate of return (or a project net present value) after tax. Third, if we make separate allowance in the DCF profile for loans received (treating them as positive cash flow to the shareholders) and for interest payments and capital repayments (treating them as negative cash flow by the shareholders), then we are no longer looking at the project as an entire project, we are looking instead at the rate of return upon their investment expected by the shareholders. We should call that the shareholders' projected rate of return, or the rate of return on equity arising out of the project. Or, if it was the NPV measure that we were looking at, we would call the NPV to shareholders arising out of the project.

12. Depending upon the applicable rates of taxation, and the loan to equity 'gearing' of the project, these three measures of return may be expected to be substantially different. Each of them is valid. Particularly for a mining project, all parties (government, lenders, and equity shareholders) will want to see what the rate of return for a project looks like before taxes are levied, and perhaps also before any major charges are paid to government for the extraction of the ore. In a sense that gives a measure of the size of the potential surplus that there is to be negotiated over. The project rate of return after tax will be of concern to both equity investors and the lenders to the project, particularly to the latter perhaps as indicating the degree of confidence they can attach to the project's positive cash flow being sufficient to cover their loans. The rate of return upon equity will be of principal concern to the equity shareholders - including the state when considering equity participation. This projected rate of return is likely to be higher than the rate of return on the project after tax, but it is also more at risk (as is taxation levied on profits). It is

more at risk because the lenders have to be paid off whether the project is doing worse than anticipated or better. If the project does worse, the equity holders (and Treasury) will therefore suffer most and there may not be sufficient cash left in the project after the servicing of loans to allow them dividends (and taxes on profits). If the project turns out better, they are the persons who will benefit most - thus illustrating the process known as 'gearing'.

13. The simplest way to approach a DCF analysis is through the idea of compound interest. We are all familiar with the way in which money left in a savings account at a bank will grow at a compound rate according to the expression $A.(1+i)^n$, where A is the original sum invested, i is the applicable rate of interest, and n is the number of years that the money is left in the account. Thus, if \$100 is invested, it grows to \$110 after one year, \$121 after two years, \$133.10 after three years, ... and $\$100.(1.10)^n$ after n years. What we can say as a result of such calculations is that \$131.10 represents the future value of A, when $A = \$100$, $i = 10\%$, and $n = 3$.

14. The concept of discounting amounts to putting that process into reverse. What we want to find out is not the future value of a sum invested in the present, but the present value of a sum received (or spent) in the future. Again, to do the calculation we need to know the actual sum that is to be received (or spent), the number of years, and the prevailing interest rate. From the example outlined above, we know that the present value of \$131.10 received in 3 years time with an interest rate of 10% is exactly \$100, because that is what the sum would grow to in 3 years under the conditions assumed. That should give us the clue as to how we calculate present values of sums of money received in the future. Instead of multiplying the sum initially invested by the compound interest factor $(1 + i)^n$ in order to calculate the future value, we can divide the sum received in the future by exactly the same compound interest factor in order to get the present value of that future sum. The present value (A) of a sum (X) received in the future is given by the formula

$$A = X \text{ divided by } (1 + i)^n$$

where i is again the prevailing interest rate, and n the number of years. The same equation can also be written

$$A = X \cdot \left\{ 1/(1 + i)^n \right\} \quad \text{or} \quad A = X \cdot \left\{ 1/(1 + i) \right\}^n$$

since all three equations are identical in the sense that they will all yield identical answers whatever the values for the variables fed into them.

15. We can now see what a discount factor is. For a given rate of interest and a given number of years, it is simply the reciprocal of the values that will be shown in a compound interest table, in other words, 1 divided by the compound interest figure. To go back to our example, the discount factor for three years discounting when the prevailing interest rate is 10% must be 1 divided by 1.331, which is 0.751 (to three places of decimals).
16. In practice therefore, to construct one's own table of discount factors, one could work out the compound interest factor for all the values of the expression $(1 + r)^n$ that one was interested in, and then work out the reciprocal of each compound interest factor. What one would in practice be doing is arriving at a table of values for the expression $1/(1 + i)^n$. But one could also construct the table by working out the value of $1/(1 + i)$ only (i.e. $1/1.10 = .909$), and then keep on multiplying that discount factor by itself to get succeeding values of $\left\{ 1/(1 + i) \right\}^n$.

Thus, when $i = 10\%$

$$1/1.10 = .909$$

$$(1/1.10)^2 = .909 \times .909 = .826$$

$$(1/1.10)^3 = .826 \times .909 = .751$$

likely to result from a project, it is clear that expenditures are likely to exceed receipts in the early years while the investment is being put in place and possibly while early operating problems are being overcome and full plant utilization attained. After a certain period, however, unless the project is expected to be permanently unprofitable in which case it will not be proceeded with, projected receipts will start to exceed expenditures, and that can be expected to be the position for the rest of the project's life. This is in fact illustrated for Projects A, B and C in the very simplified Example One. For each project all the capital expenditure is assumed concentrated in Year 0, with positive cash flows being shown thereafter.

21. This particular feature of project cash flow projections - namely that negative cash flows predominate in the early years of a project's life with positive cash flows coming thereafter - has two important consequences for DCF analysis. The first is that the higher the interest rate chosen for evaluating a project, the lower will be its net present value. The second is that for all projects there will be one particular interest rate at which the net present value of the project will work out to be 0. That particular interest rate is defined as the Internal Rate of Return (IRR) of the project, and it is also commonly referred to as 'the DCF rate of return'.

22. But let us return for a moment to what it is that accounts for the NPV of a project going down as the prescribed interest rate goes up. We have seen that the discount factor is the reciprocal of the compound interest factor. Just as the compound interest factor grows faster the higher the rate of interest applied, so the discount factor diminishes faster the higher the rate of interest applied. That means the present value of future receipts will be lower the higher the interest rate applied. Let us illustrate the dramatic effect of that by looking at the present value of \$100 received in five, 10 and 20 years' time, with interest rates applied of 6%, 12% and 18%.

Example Two

after	<u>Present Value of \$100</u>		
	applicable interest rates		
	6%	12%	18%
5 years	74.70	56.70	43.70
10 years	55.80	32.20	19.10
20 years	31.20	10.40	3.70

The table displays clearly a number of features of discounting:

- (i) The present value at any positive interest rate is always less than the nominal value of the future sum.
- (ii) The longer the delay in realizing some nominal value, the lower is the present value at any prescribed rate of interest.
- (iii) The higher the interest rate, for any given period of delay, the lower will be the present value.
- (iv) At high interest rates the present value of a sum whose receipt is delayed declines extremely rapidly (To give a further example of this latter point; - at interest rates of 25%, the present value of \$100 received in 21 years' time is less than \$1. This last factor explains why TNCs are much readier to make concessions in respect to distant years than in respect to those nearer the present.)

23. If we were to apply a 0 rate of interest (or discount rate) to the appraisal of a project, we would be valuing all receipts and payments equally no matter how soon they were received or how long into the future they were deferred. But as soon as we start applying a discount factor, we start effectively assigning more proportionate weight to earlier payments and receipts than to later ones. And as Example Two shows, the higher the interest rate (or discount factors) we select, the more proportionately important early expenditures and receipts become by comparison with later ones. Given the pattern of cash flows that is likely to characterise any project, the higher the interest rate applied the more weight will be given to the earliest flows which are negative by comparison with the later flows that are expected to

be positive. It follows, therefore, that for a given cash flow projection of this form, the higher the interest rate applied, the lower will be the net present value of the project. There will come a point, indeed, when the NPV of the project becomes 0, and any increase in the interest rate beyond that point will render the Net Present Value negative.

24. As mentioned, the precise interest rate that gives a net present value of 0 to a project is defined as the internal rate of return (IRR) of that project. Unfortunately there is no formula for calculating. Calculating this has to be done either by iteration (i.e. by doing it again and again until one achieves a satisfactory answer), or by estimation.