

Table 1
SADCC – Economic breakdown

	Area	Pop'n	GDP	GDP/Cap	Public foreign debt	Manufacturing	Construction	Origin of GDP (%)			Distribu- (transport services*)	Principal exports (% total exports)	Mineral exports 1981 %	Value mineral produc- 1981 M USD	% imports from RSA
	km ³	x10 ⁶	G USD	USD	G USD			Mining + quarrying	Agriculture forestry fishing						
Angola	1,247	7.3 (82)	3.6 (80)	495 (80)	2.26 (81)	4 (80)	NA	NA	48 (80)	NA	Oil 84 (83) Diamonds 8 Coffee 5	90	2000	Neg	
Botswana	600	0.9 (82)	0.72 (82)	1 010 (81)	0.21 (82)	5 (80/1)	NA	37 (80/1)	9 (80/1)	16 (80/1)	Diamonds 66 (83) Meat 13 Cu-Ni-Matte 8	65	260	91 (82)	
Lesotho	30	1.4 (81)	0.35 (81/2)	540 (81)	0.14 (82)	5 (80/1)	10 (80/1)	9 (80/1)	27 (80/4)	47 (80/1)	Diamonds 40 (81) Wool+Mohair 18	40	19	97 (79)	
Malawi	119	6.3 (82)	1.43 (82)	200 (81)	0.75 (82)	8 (82)	NA	NA	40 (82)	13 (82)	Tobacco 57 (82) Sugar 14 Tea 18	Neg	7	36 (82)	
Mozambique	802	13.3 (81)	2.40 (79)	270 (81)	1.66 (83)	(35% "industry")	6 (79)	(35% "industry")	42 (79)	11 (79)	Prawns 24 (83) Oil products 18 Cashew+oil 15 Tea 14 Cotton fibre 7	~5	~15	NA (high)	
Swaziland	17	0.6 (82)	0.42 (82)	747 (81)	0.18 (82)	20 (81)	5 (81)	3 (81)	25 (81)	24 (81)	Sugar 33 (82) Chemicals 17 Woodpulp 15 Fruit 10 Electronic 5	~5	~23	>90 (82)	
Tanzania	945	19.8 (83)	4.75 (82)	249 (82)	2.5 (83)	9 (82)	NA	NA	49 (82)	NA	Coffee 30 (82) Cloves 18 Cotton 12 Cashew 6 Sisal 6	~8	~35	Neg	
Zambia	753	6.2 (82)	3.46 (82)	560 (82)	2.2 (82)	10 (82)	NA	30 (82)	11 (82)	NA	Copper 89 (82) Cobalt	96	850	16 (80)	
Zimbabwe	391	7.5 (82)	5.92 (81)	870 (81)	1.12 (82)	26.5 (81)	3.0 (81)	5.2 (81)	17.8 (81)	21.3 (81)	Tobacco 20 (82) Gold 15 Ferro-alloys 8 Asbestos 6	40	547	22 (82)	
(Namibia)	824	1.0 (81)	1.65 (81)	1 960 (81)	0.50 (83)	4.6 (81)	NA	30.9 (81)	10.2 (81)	22 (81)	Uranium 30 (81) Diamonds 23 Other minerals 15 Meat 7	62	700	>90 (81)	
Total SADCC (excl Namibia)	4904	63 (82)	24 (81)	~380 (81) GDP/Cap	~11 (82)	~13 % $\frac{\Sigma \% * GDP}{\Sigma GDP}$			~31 % $\frac{\Sigma \% * GDP}{\Sigma GDP}$		* est. ~ approximately Neg. Negligible NA. Not Available	~58 % $\frac{\Sigma \% * Exp}{\Sigma Exp}$	3.757 M USD	~31% (82) $\frac{\Sigma \% * imp}{\Sigma Imp}$	

Sources:
The Economist Intelligence Unit 1984; US Dept of the Interior, 1983 and 1984; World Bank, 1983 and 1984.

Table 2
Production of major minerals 1982 (in kt except where noted)

Mineral/ Metal	SADCC							Total SADCC	% Western world	Namibia	Zaire	Total SADCC +Namibia +Zaire	% Western world	Total Southern Africa (SADCC+Namibia +Zaire+RSA)		% Western world
	Angola	Botswana	Mozambique	Tanzania	Zambia	Zimbabwe	RSA							682.3		
Gold (t)	—	—	—	(0.01)	0.4	13.4	13.8	1.4	—	4.2	18.0	2	664.3	682.3	70	
Nickel	—	17.8	—	—	—	13.4	31.2	8	—	—	31.2	8	20.5	51.7	13	
Copper	—	18	—	—	530	25	573	9	49	503	1 125	18	207	1 332	21	
Cobalt (t)	—	254	—	—	2 300	98	2 652	18	—	5 608	8 260	57	—	8 260	57	
Chrome	—	—	—	—	—	432	432	9	—	—	432	9	2 162	2 594	53	
High carbon* Ferrochrome	—	—	—	—	—	200	200	12	—	—	200	12	570	770	47	
Coal (Bit)	—	415	500	(1)	604	2 969	4 490	Neg	—	—	4 490	Neg	140 137	144 627	5	
Diamonds (kct)	1 400	7 770	—	300	—	—	9 470	28	1 010	10 000	20 480	61	8 850	29 330	86	
PGM's (kg)	—	—	—	—	—	145	145	1.3	—	—	145	1.3	94 194	94 340	87	

* Figures for 1981, t = metric tons, Bit = bituminous.

Sources:
Engineering and Mining Journal, March 1984; Mining Annual Review, 1983 and 1984; US Bureau of Mines, 1983 and 1984; Hall J, 1983; Metallgesellschaft, 1983.



Mining in the SADCC

By Paul Jourdan

This paper concerns mining in the Southern African Development Coordination Conference (SADCC) in the context of the present world crisis. As such it concentrates on the bulk of mineral-metal extraction in the region which is for export onto the world market, primarily to the industrialized, OECD countries. The potentially important area of intra-regional mineral-metal trade is not considered.

The 1980 SADCC Lusaka declaration emphasized as a founding concept, the reduction of dependence, particularly, but not only on South Africa (RSA). The states of the SADCC are especially dependent on the West and the RSA for mineral exploitation and mineral markets. Minerals contribute over 50 per cent of their joint export earnings and the mining sector is the second largest contributor to their overall GDP after agriculture (see Table 1).

In 1981 Zimbabwe presented the SADCC Council of Ministers with a report on *Regional Cooperation in the Mining Industry* (SADCC, 1981), which outlined areas of possible regional cooperation, such as: mineral beneficiation, manpower training, mineral marketing and mining financing and technology. Subsequently Zambia was given the portfolio for coordinating the mining sector.

A programme of action on the mining sector was approved by the SADCC Council of Ministers in May 1984. The projects include: a skilled manpower survey, an inventory of mineral resources, a study on small scale mining, processing and marketing, a study on the manufacture of mining machinery and chemicals, and the manufacture of fertilizers, a study on the rationalization of mineral processing and a study on the development of an iron and steel industry (SADCC 1984). As yet these studies have no funding.

The striking aspect of this programme is not what it includes but rather what it excludes. The crucial and controversial area of minerals marketing has been dropped from the original Zimbabwean proposal and no mention has been made of a possible regional approach to mining legislation, particularly policy on the mining TNCs. But it is too early to assume that these two vital areas are not on the agenda for a later date. The SADCC as a body has generally been somewhat cautious and it could be that the areas of minerals marketing and mining legislation are considered to be too contentious at

this time, especially as foreign private investment is being sought at the moment.

An overview of mining in the states of the SADCC

Tables 1 and 2 provide a summary of the economic, trade and mining situation in the SADCC region. Of the nine SADCC economies, in no less than five, mineral exports accounted for greater than 40 per cent of total export receipts in 1981 (since then Lesotho's only, diamond, mine has closed). As a group, in the same year, the total value of mineral production was about 3.8 G USD and mineral exports contributed roughly 58 per cent of total export receipts.

Three of the SADCC states have virtual mono-mineral economies, notably Angola with oil, Zambia with copper and Botswana with diamonds. At the other extreme three have only small or underdeveloped mineral sectors, namely Tanzania, Malawi and Mozambique. Two countries, Lesotho and Swaziland, formerly exploited important mineral resources but these are currently exhausted, depleted or uneconomic. Lesotho had diamonds and Swaziland had iron ore while its asbestos reserves are almost exhausted. The final country in the SADCC grouping, Zimbabwe, has a mineral sector of moderate size in relation to the overall economy which represented 5.2 per cent of GDP and 40 per cent of export receipts in 1981. Zimbabwe produces a wide variety of minerals, many for internal consumption. No single mineral is dominant. In 1982, for example, gold represented 15 per cent, ferro-alloys 8 per cent and asbestos 6 per cent of export receipts.

The mining TNCs and the SADCC

Throughout the SADCC region, control of the mining industry is in the hands of the large mining TNCs. This control is not only exerted directly through ownership (equity) but also indirectly at various points in the mineral-metal cycle going from inputs (equipment/technology) to

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The map indicates the importance of developing the transport sector to achieve regional integration within SADCC.

What is SADCC ?

The Southern African Development Coordination Conference (SADCC) is an association of the nine majority-ruled states of Southern Africa. Through regional cooperation SADCC works to accelerate economic growth in order to improve the living conditions of the peoples of Southern Africa. SADCC also aims to reduce the dependence of its Member States on South Africa.

The member states of SADCC are: Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia, Zimbabwe.

The Southern African liberation movements recognised by the OAU are invited to SADCC Summit meetings as observers. These are the South West Africa People's Organisation (SWAPO), the African National Congress (ANC) and the Pan-Africanist Congress of Azania (PAC).

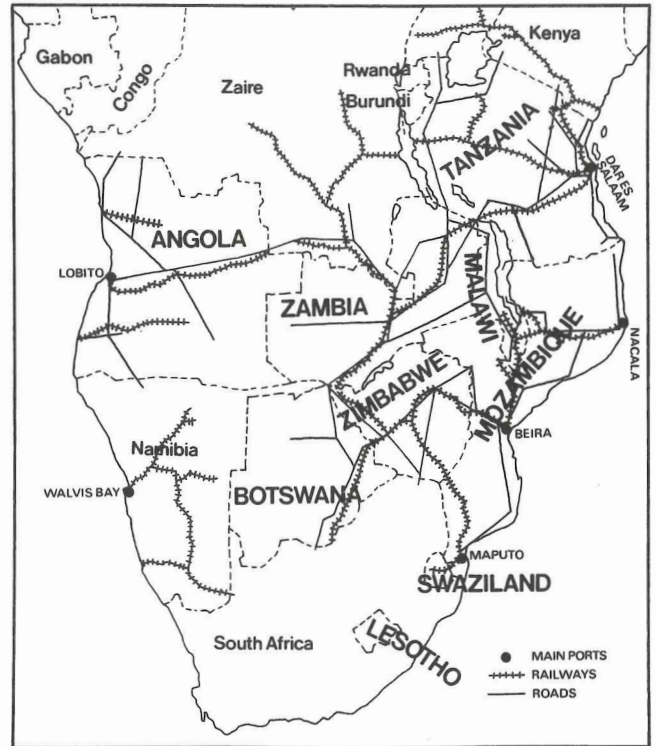
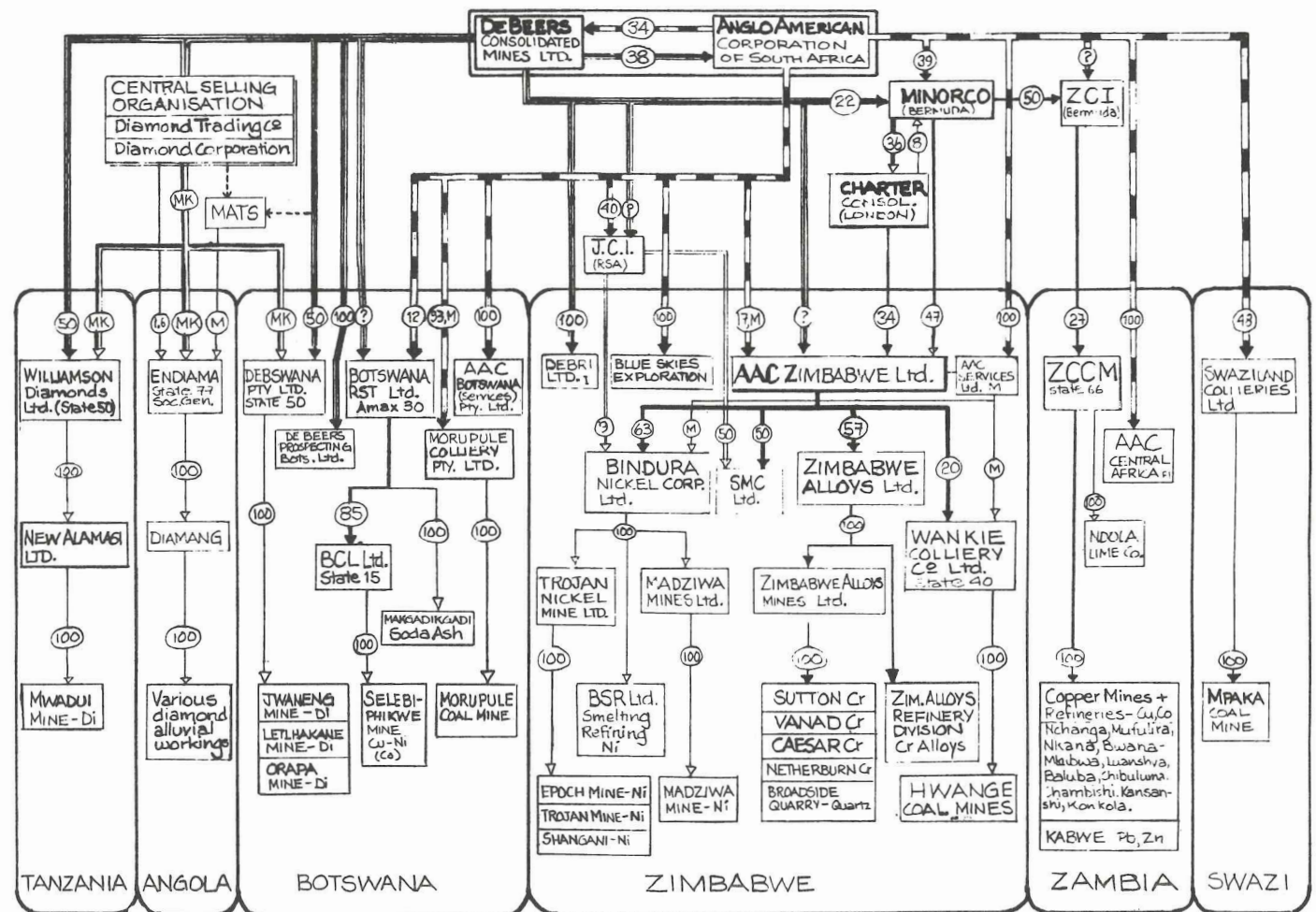


Figure 1
Anglo American – De Beers mining interests in the SADCC



Sources: Annual Reports of De Beers, 1983 and 1984; Anglo American, 1983 and 1984; Charter, 1983 and 1984; Minorco 1983, Mining Annual Review, 1983 and 1984. MK = marketing, M = management/service

the extractive phase, through mineral processing and metals refining, to the marketing of the final product. The mining TNCs frequently also have indirect control via management or technical services contracts, an example of which is Wankie Collieries, where the Zimbabwean state has 40 per cent of the equity and the Anglo American Corporation of South Africa (AAC of SA) has 20 per cent, but the AAC are still the "Administrative and Technical Advisors", through their subsidiary AAC Services Ltd.¹

Of the mining TNCs the AAC-De Beers group is by far the largest in the region (see Figure 1) if not the world. This mining and finance colossus consists of the Anglo American Corporation of South Africa, De Beers Consolidated Mines and the Johannesburg Consolidated Investment Company (JCI) in South Africa, Minerals and Resources Corporation (Minorco) in Bermuda and Charter Consolidated in London plus a myriad of subsidiaries spread across the globe.

The AAC-De Beers mining interests in the SADCC region are given in Figure 1. Briefly, they stretch from: diamonds in Tanzania, Angola and Botswana, now the world's largest producer (1983=10.7 million carats), copper in Zambia and Botswana, nickel in Zimbabwe and Botswana, coal in Botswana, Zimbabwe and Swaziland, to chrome and ferrochrome alloys in Zimbabwe.

Other major TNCs involved in mineral extraction in the SADCC include Gulf Oil and Texaco in Angola (petroleum) and Amax in Botswana (copper and nickel). Amax appears to be in the process of shedding its Southern African interests: in 1982 it sold its 30 per cent share in Tsumeb Corp Ltd in Namibia and in 1984 it sold its 7 per cent share in Zambia Consolidated Copper Mines.²

Union Carbide, Rio Tinto-Zinc (RTZ), Lonrho and Falconbridge all have mining interests in Zimbabwe. These and several other TNCs such as Shell, Esso and BP are

also involved in mineral exploration in the SADCC region.

Anglo and Lonrho also have significant interests in other sectors of the SADCC economies. For example, in Zimbabwe, Anglo holds 53 per cent of Border Timbers Ltd, 30 per cent of Hippo Valley Estates Ltd, 18 per cent of National Foods Holdings Ltd, and 39 per cent of RAL Holdings Ltd.³, in addition to its holdings in the mining sector. Lonrho in Malawi holds 32 per cent of Dwangwa Sugar Corp Ltd, 10 per cent of Chibuku Products Ltd (maize beer) and 51 per cent of David Whitehead & Sons Ltd (textiles). In Zimbabwe, Lonrho holds 100 per cent of the Wattle Co Ltd, 60 per cent of W Dahmer & Co Ltd (vehicle builders), 100 per cent of Zambesi Coachworks Ltd (coachbuilders) and 100 per cent of Zimoco Ltd (vehicle distributors). It also has wide ranging non-mining interests in Zambia and Swaziland.⁴

World crisis and minerals—metals

The most obvious effect of the recent world crisis on minerals—metals has been

their dramatic fall in price. This is adequately demonstrated in Table 3.

Metals and minerals dropped 12 per cent in export price in 1981, 8 per cent in 1982 and 2.2 per cent in 1983. This is equivalent to a 26 per cent drop from 1980 to 1983.

The export volumes of metals and minerals from developing countries have also undergone a marked fall. Table 4 indicates a drop of 2.1 per cent in 1982 and 1.9 per cent in 1983, which is equivalent to a total fall of 4 per cent over these two years.

Table 4 also gives the change in value of mineral and metal exports of developing countries between 1965 and 1981. This seems to indicate a 600 per cent increase of this period but the increase is in *current USD*. Table 5 gives real metal prices indexed back to 1970.

It is apparent from these tables that the response to the crisis has not been the same for all minerals—metals. Though similar, the behaviour of fuels, precious metals and "other" minerals—metals have

Table 3

Change in export prices (Average annual % change)

Developing countries	1965-73	1973-80	1981	1982	1983
Metals + minerals	1.6	5.6	-12	-8	-2.2
Fuels	6.7	24.7	10.5	-2.6	-14.5

Source:

World Bank, 1984, Table 2.7.

Table 4

Change in export volumes and value of exports, 1965-83

Developing countries	Change in export volumes (average annual % change)					Value of exports G USD	
	65-73	73-80	1981	1982	1983	1965	1981
Metals + minerals	6.3	5.9	2.6	-2.1	-1.9	4.5	26.9
Fuels	6.4	-1.3	-21.9	5.1	6.1	7.3	165.1

Source:

World Bank, 1984, Table 2.9.

all been markedly different. Fuels and precious metals have held their value over the longer term (from 1970) but joined the general decline in both value and volume from 1980. The only base metal to perform well in terms of value has been tin, but it has had dramatic drops in volume. World smelter production of tin has dropped from 245 kt in 1979 to 220 kt in 1982, and shows no increase on 1941 (219 kt), whilst at the same time tin stocks in 1983 stood at 108 kt or 67 per cent of annual world consumption.^{5,6} Tin's atypical behaviour is most probably due to it being the only metal with an active producer organization, the International Tin Council (ITC), with effective market intervention to protect value.

SADCC minerals—metals and world crisis

With the exception of petroleum in Angola, diamonds in Botswana, Angola and Tanzania, and gold in Zimbabwe, the SADCC minerals—metals fall into the worst hit, non-fuel and non-precious group (see Table 1 and 2). Most SADCC metals—minerals have declined in real value over the last 15 years, and dramatically declined in both export value and volume since the onset of the present world crisis. The causes for this are manifold but the most important are the following three:

- Unlike petroleum and tin which have strong producer organizations (OPEC and the ITC) with which to combat attempts by the developed countries to export their crisis to the periphery in the form of declining terms of trade (manufactures vs commodities), the SADCC minerals (see Tables 1 and 2) are "unprotected". The worst cases are copper and nickel which in 1983 were worth 46 per cent and 36 per cent respectively of their 1970 unit value (see Table 5). In addition, Western world consumption dropped 9 per cent for copper and 25 per cent for nickel between 1979 and 1982 (see Table 6).

The SADCC region accounted for 9 per cent of the copper and 8 per cent of the nickel production in the Western world in 1982 (see Table 2).

Diamonds, on the other hand, have a TNC marketing monopoly, the De Beers' Central Selling Organisation (CSO), which has managed to maintain the real value of diamonds except for the diamond crisis of 1980/81 when the CSO temporarily lost control of the price due to excessive speculation by diamond buyers. Diamond

production increased in volume from 41 M ct in 1977 to 57 M ct in 1983,⁷ and the CSO sales increased by 27 per cent from 1 257 M USD to 1 599 M USD from 1982 to 1983⁸. From the end of 1968 to the end of 1983 the *real* value of rough diamonds increased by 57 per cent.⁹

- The second reason is that precious metals—minerals benefit from speculation provoked by the economic uncertainty prevalent at the onset of crises, which does not apply to the non-precious met-

Table 5
Metal prices 1970–83
(indexed back to 1970 = 100)

Metal/ year	71	72	73	74	75	76	77	78	79	80	81	82	83
Copper	74	71	110	115	63	68	60	58	75	73	53	42	46
Aluminium	99	89	85	98	102	100	119	128	140	137	88	65	91
Tin	92	96	115	176	136	143	189	209	225	216	165	140	137
Lead	80	92	123	153	98	102	130	129	212	140	102	71	54
Zinc	101	119	251	153	182	165	128	120	135	121	122	101	101
Nickel	53	55	57	69	58	61	56	49	60	61	50	38	36
Gold	109	149	235	348	323	237	263	319	456	800	545	419	456
Silver	83	88	126	208	181	168	168	181	335	549	253	181	249
Platinum	88	88	92	109	92	86	76	117	177	242	143	99	123

Source:
Shearson, American Express, 1984, Table E4.

Table 6
Western world consumption (production) 1976–1982

Metal	1976	1977	1978	1979	1980	1981	1982
Aluminium (Mt)	14.0	14.5	15.3	16.2	15.6	15.1	14.7
Lead (Mt)	3.9	4.2	4.1	4.2	3.9	3.8	3.8
Copper (Mt)	6.4	6.8	7.3	7.5	7.2	7.3	6.8
Zinc (Mt)	4.2	4.2	4.6	4.7	4.5	4.4	4.2
Tin (kt)	184	174	178	178	167	156	146
Nickel (kt)	488	459	514	584	527	474	439
Gold (t) *	969	972	980	961	946	962	971
Silver (t) *	7 769	8 357	8 381	8 431	8 157	8 721	9 054

* Mine production.

Sources:
Metallgesellschaft, 1983, p 16–62.
Shearson, American Express, 1984, Table 3.3.

als—minerals, whose prices drop rapidly with falling industrial demand.

- This brings us to the third, developing country-specific, dynamic. Mineral exports for many third world economies are the major means of earning hard currency, so when the unit value of their mineral/s declines, they attempt to increase their production and sales so as to avoid cutting back on vital imports. In this way supply often increases or remains constant during periods of falling demand resulting in an oversupplied "buyers' market" and low prices. These lower prices provoke a further increase in production to maintain foreign currency flows by the third world producers which again results in lower prices, and so the downward spiral continues.

As a result of falling foreign exchange earnings aggravated by high interest rates stemming from the OECD crisis, third world mineral economies have . . . "extensive loans to pay off and their need of foreign currency is so great that production must continue unabated"¹⁰, resulting in oversupply and lower prices. In addition, mining tends to be capital intensive, requiring large imports of capital goods which with the prevailing low prices is often financed by loans, increasing debt servicing commitments. Other hard currency costs such as the mining TNC's profit repatriation or management fees and expatriate salaries are common for third world mining industries.

Mineral producer organizations — the case of tin

Tin has maintained its value (see Table 5) in the face of falling consumption (see Table 6) and very high stocks which stood at 67 per cent of annual consumption in 1983. The ITC maintains a buffer stock which is added to via purchases of tin on the open market when demand is weak and depleted via selling when demand is strong. The ITC also exerts export controls on its members during periods of continued low demand.

Table 7

Total real value of consumption (1970 = 100 for unit value)

Metal	1972 indexed value	1982 indexed value	1972 consumption (kt)	1982 consumption (kt)	Total indexed value 1972	Total indexed value 1982	% change in value 1972-82
Tin	92	137	232	200	21 344	27 400	+28 %
Copper	74	46	7 942	9 063	587 708	416 898	-29 %
Nickel	53	36	580	633	30 740	22 788	-26 %

Sources:

Table 5 for indexed values.

Metallgesellschaft, 1983, for consumption data.

An argument against producer organizations intervening in the "free market" to set "false" prices is that over time these minerals will suffer from substitution by other, now relatively cheaper minerals or non-mineral substitutes. Tin's high stocks and falling consumption are given as examples of the penalties for this sort of "overpricing". This type of argument would only be valid, though, if it could be shown that the total value of the decreased consumption of an "overpriced" mineral is less than the total value of the increased consumption with lower prices of a "free market" priced mineral. A calculation comparing tin, copper and nickel consumption using values from Table 5, for the period 1972 to 1982 is presented in Table 7.

The results from this "experiment" would appear to come down strongly in favour of a policy of coordinated producer market intervention. Although consumption of both copper and nickel increased from 1972 to 1982, the total indexed value of that consumption decreased by 29 per cent and 26 per cent respectively. Both copper and nickel are traded relatively "freely" with no market "tampering" by producer organizations. On the other hand, although the consumption of tin was down some 14 per cent over this period, the total indexed

value of that consumption rose by 28 per cent.

Future prospects

Although the industrialized market economies strengthened in 1983 and the first half of 1984 with an average GDP growth rate in 1983 of 2.3 per cent,¹² demand for most metals and minerals stayed weak with developing countries experiencing a fall in the export volume of their metals and minerals of 1.9 per cent and a fall in prices of 2.2 per cent (see Table 3).

Even if the OECD recovery continues the prospects for non-cartelized and non-precious metals and minerals are not encouraging due to the following factors:

- The present high stock levels that need to be absorbed before demand can outstrip supply.
- The present low mine capacity utilization meaning that any increase in demand can rapidly be soaked up by extra production from existing mines.
- The present high debt servicing ratio of many third world producers will encourage them to continue with the present tendency of "export or bust" guaranteeing an oversupplied market and low prices.

It will take a long period of sustained eco-

conomic recovery in the OECD countries before stock levels come down, unused mine capacity is absorbed and subsidised producers go into the "black".

The prospects for the non-precious and non-cartelized minerals and metals in the longer term can perhaps best be assessed by the historical performance of the commodities. In times of world boom their real (terms of trade) value tends to decrease and in times of world slump their real unit value tends to decrease faster, as is borne out by Figure 2. The long term prospects should therefore rather be viewed in terms of "bad" prospects of "worse" prospects depending on growth or recession in the industrial countries except in the low probability case of hard commodities being cartelized.

The SADCC-prospects for metals and minerals

Hard commodities have tended to lose their real value over time except for metals and minerals that have strong producer organizations or have a speculative (hoarding) value other than for industrial use. Therefore the prospects for mineral exports for the states of the SADCC will to a large extent depend on the extent to which their exports are dependent on minerals and metals that are cartelized or speculative (precious).

Fuel minerals

The only *petroleum* production in the SADCC is in Angola. Petroleum exploration is being carried out in several of the other SADCC countries such as Tanzania and Mozambique. Coal is currently mined in Botswana, Zimbabwe, Mozambique, Swaziland and Zambia (Table 2).

Although the real value of oil has fallen since 1981, it has increased substantially since 1973 (Table 3) and is likely to maintain its real value over the longer term as non-OPEC production is peaking, meaning that OPEC's share of the market will steadily increase in turn strengthening OPEC's power to determine value

and coerce renegade producers. This augurs well for the export earnings of Angola (which has applied for OPEC membership), but with oil and oil products already the principal import of most other SADCC states, terms of trade in the region as a whole are likely to deteriorate further.

Projects for the production of fertilizer from *natural gas* are under way in Tanzania and under consideration in Mozambique. It is envisaged that this production will mainly be for the local, regional market.

Because of *coal's* close association through substitutability with cartelized petroleum, demand has increased substantially since 1973. Coal has no effective producer organization and world reserves are huge. In addition several new producers have come onto the export market over the last few years. Coal has a low value to weight ratio, which means that distance to markets is an important factor in its export feasibility for the SADCC region. For example in 1982, only 36 per cent of the final value of South African coal in Europe was the cost of mining it. By far the greater cost is for moving it from the mines to the OECD end users.¹³ The world recession and overproduction has meant that in 1983 South African coal was worth 18 per cent less, in real terms, than in 1976.¹⁴

It would be difficult for the states of the SADCC to break into the presently oversupplied world market on a large scale, given the region's logistical disadvantages, but future increases in the real price of oil or sustained recovery in the West, could put coal exports back on the agenda. For Botswana, world coal prices would have to double for its ambitious coal export plan to be viable.¹⁵

Precious metals

Prospects for the SADCC precious metals—minerals are somewhat brighter. As mentioned before, diamonds, gold, platinum and silver have a speculative attraction which often results in demand for

these commodities increasing during periods of economic uncertainty, high inflation and low interest rates. The price of all four of these precious minerals shot up in unison in 1980 (see Table 5) in response to the deepening crisis and a loss of confidence in the US dollar at the time.

Diamonds, in addition to having a speculative value, are also effectively cartelized through De Beers' marketing monopoly, the CSO. Gold and platinum, on the other hand, have a "country concentration". South Africa presently has more than 60 per cent of the Western world's gold production and more than 80 per cent of platinum production (Table 2). The extent to which their present relatively high real price is determined by speculation and hoarding or by producer supply control would be difficult to determine, but either way the future of these minerals—metals appears to be secure enough to at least predict a maintenance of real value. This bodes well for the export earnings of Botswana (66 per cent diamonds in 1983) and to a lesser extent for Angola (8 per cent diamonds in 1983) and Zimbabwe (15 per cent gold in 1982), but the rest of the SADCC exports little or none of these commodities (Table 1).

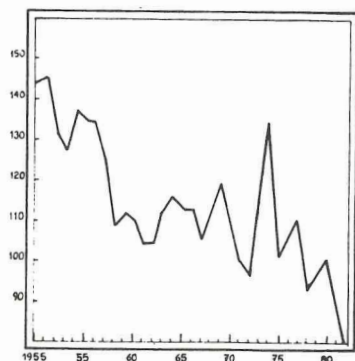
Other metals—minerals

Of the other minerals and metals produced in the SADCC, the main foreign exchange earners are copper in Zambia, Zimbabwe and Botswana, cobalt in Zambia, nickel in Zimbabwe and Botswana, chrome in Zimbabwe and asbestos in Zimbabwe and Swaziland.

The world crisis has provoked drastic reduction in both the value and consumption of these commodities and even with limited economic recovery in the OECD countries over the next few years, the prospects for these non-cartelized and non-precious minerals and metals do not look bright as over-supply, under-capacity production and high stock levels are likely to continue.

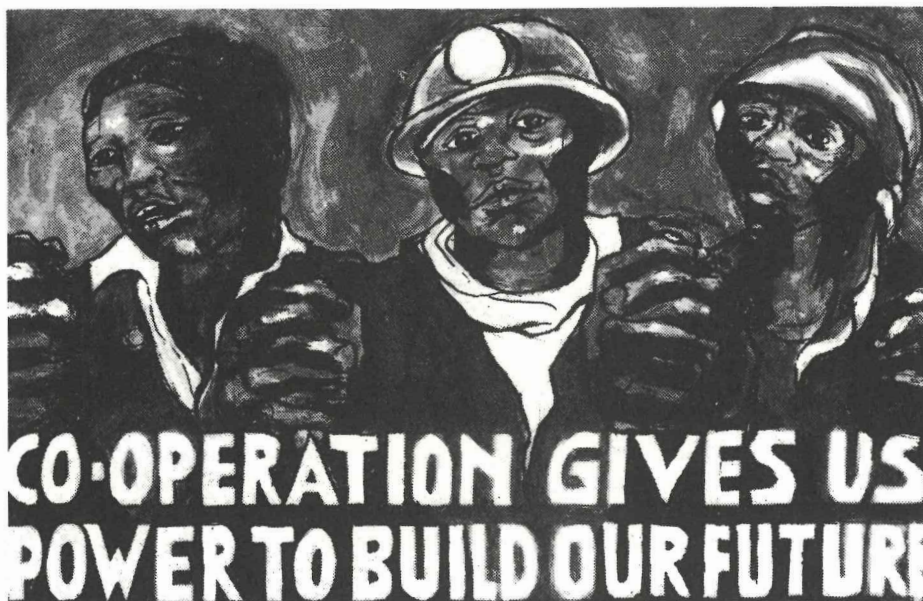
The objective conditions for producer

Figure 2
Composite commodity price index
(1977/79 average = 100)



Prices of commodities (excluding oil) produced by Third World countries, measured by the prices of manufactures they import.

Source:
Optima Vol 32, no 2, p 58.



organizations within the SADCC are not good as the region does not have a significant share of world production of any mineral or metal (see Table 2). The possibilities of producer collaboration with its neighbours looks better especially for cobalt (Table 2) where Zambia and Zaire have over 50 per cent of world production between them. But whether the necessary subjective conditions of political will exist for effective cartelization is doubtful.

With the USSR being the world's biggest chrome producer with 36 per cent in 1982 and South Africa the second with 26 per cent in 1982¹⁶, it is unlikely that any form of producer control will come about for chrome even though southern Africa has over 50 per cent of Western world production (Table 2) and over 80 per cent of world reserves.¹⁷

Notes:

- ¹ Wankie Colliery Co Ltd, 60th Annual Report, 1983.
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- ³ Anglo American Corporation of South Africa Ltd, Annual Report 1983, p 67.
- ⁴ Lonrho Plc, Annual Report 1982, p 51.

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⁶ Shearson American Express, *The Annual Review of the Metal Markets 1983-1984*, p 2.

⁷ *Engineering and Mining Journal*, March 1984, p 90.

⁸ De Beers Botswana (Debswana) Mining Co (Pty) Ltd, Annual Report 1983.

⁹ Ousey B, Personal Communication September 1984. Central Selling Organization, London.

¹⁰ Shearson/American Express, *ibid* p 5.

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