STRUCTURE OF THE INTERNATIONAL COMMODITY MARKET AND THE DEVELOPMENT OF THE SOUTH

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ABSTRACT

Various schools of thought have been advanced to explain the problem of underdevelopment in the South. They include the neoclassical, the structuralist and the dependency schools. The neoclassical view of the situation is blamed on internal 'policy mistakes' which is unserpinned by price distortions in both product and factor markets.

The structuralist and dependency schools, however, see the problem beyond national boundaries and within the framework of international economic relations. For them, the relevant level of analysis is 'macro': there is but one world economy, it is capitalist, and that the performance of national economies is determined by their location within this system. Thus the problem of under-development in the South is a matter of relations in distribution of the gains from trade. While the structuralists seek to explain the basic problems of the south in terms of certain special sructural bottleneck of her production and foreign trade, the dependency school, in a more radical way, asserts that the peripheral nations (the South) remain under-developed precisely because they have borne and continue to bear the cost of developing the centre (the North).

This paper examines the international commodity market with a view to identifying the main structural feature that have been considered disadvantageous for the devlopment of the south, using structural-dependence analysis. It commences with an analysis of the structure of international trade, followed by an exposition on the nature of the distribution of the gains from trade. Finally, policy options open to the South are outlined. The author's conclusions are that there are strong North-South trade links within a framework of domination by the North and that relationship biases the distribution of the gains from trade in favour of the North and against the South. This, then, calls for a determined effort on the part of the leadership of the South for increases South-South trade.

Keywords: Commodity, market, south, development, OPEC, NIC

INTRODUCTION

The integration of the developing countries (the South) into the world capitalist system has brought into their trail the need to rely on the international commodity market in order to survive. In the process, the maintenance of trade links with their counterparts, the rich industrialised countries (North) has tended either to develop or underdevelop the South. Differences in economic structure between the North and the South have led to 'unequal exchange' of the gains from trade in favour of the North and against the South (1).

The basis of this unhealthy trade relationship must be found in the structure of the world commodity market. Since the major exports of the North and the South are manufactured and primary products respectively, the kind of goods exported must have a place in the explanation of the situation. In addition, an assessment must be made of the nature of accessibility into the market and the organizational structure of

TABLE 3: ELECTRONIC SPECTRAL DATA.

Sample	Complex	*Band I $^4A_2 \rightarrow {}^4T_2(F)$	#Band II $^4A_2 \rightarrow {}^4T_1(F)$	Band III $^4A_2 \rightarrow {}^4T_1(P)$	
1	$[CoCl_2I_2]^{2-}$	3333	5999	15528(1.17)+	17036(1.16), 19380(1.17), 44543(4.29)
2	$[CoCl_2Br_2]^{2-}$	3333	5999	15314(1.06)	19194(1.13), 47059(2.88)
3	$[CoBr_2I_2]^{2-}$	3400	6120	15529(1.10)	19194(1.10), 264500(3.17), 44643(4.09)
4	$[CoCl_2(ONO_2)_2]^{2-}$	3279	5902	15291(1.00)	17361(0.90), 19231(1.12), 43668(3.12)
5	$[CoI_2(ONO_2)_2]^{2-}$	3279	5902	15528(1.19)	26882(3.10), 45249(4.02)
6	$[CoBr_2(ONO_2)_2]^{2-}$	3247	5845	14925(0.99)	19380(1.04), 44843(3.51)
7	$[CoBrCl(ONO_2)_2]^{2-}$	3333	5999	15244(0.95)	19231(1.15), 4444(3.42)
8	$[CoClI(ONO_2)_2]^{2-}$	3279	5908	15337(0.97)	19193(1.17), 26882(3.25), 43384(3.47)
9	$[CoCl_2I(ONO_2)]^{2-}$	3257	5863	15700(1.20)	19231(2.00), 26954(3.11), 44643(4.09)
10	$[CoCl_2Br(ONO_2)]^{2-}$	3333	5999	15267(0.94)	19120(1.14), 44843(4.10)
11	$[CoBrI(ONO_2)_2]^{2-}$	3338	5999	15337(0.92)	19493(1.10), 25381(3.30), 44843(4.05)

*Observed in the near infrared region.
#Calculated from Jorgensen's relationship (14), Band II = 9/5 (Band I) cm^{-1}.
+log ε values in parentheses.
All frequencies are in cm^{-1}.

TABLE 4: LIGAND FIELD PARAMETERS FOR THE TETRAHEDRAL COBALT (II) COMPLEXES.

Sample	Complex	#Band II (kK) $^4A_2 \rightarrow ^4T_1(F)$	Band III (kK) $^4A_2 \rightarrow ^4T_1(P)$	Dq (cm-1)	B (cm-1)	B/B_o =
1	$[CoCl_2 I_2]^{2-}$	5.99	15.53 (1.17)*	343	747	0.77
2	$[CoCl_2Br_2]^{2-}$	5.99	15.31 (1.06)	353	736	0.76
3	$[CoBr_2I_2]^{2-}$	6.12	15.53 (1.10)	370	739	0.77
4	$[CoCl_2(ONO_2)_2]^{2-}$	5.90	15.29 (1.00)	294	734	0.76
5	$[CoI_2(ONO_2)_2]^{2-}$	5.90	15.52 (1.19)	348	739	0.76
6	$[CoBr_2(ONO_2)_2]^{2-}$	5.84	14.93 (0.99)	344	718	0.74
7	$[CoBrCl(ONO_2)_2]^{2-}$	5.99	15.24 (0.95)	348	726	0.75
8	$[CoClI(ONO_2)_2]^{2-}$	5.90	15.34 (0.97)	294	734	0.76
9	$[CoCl_2I(ONO_2)]^{2-}$	5.86	15.70	348	773	0.79
10	$[CoCl_2Br(ONO_2)]^{2-}$	5.99	15.23 (0.94)	352	734	0.76
11	$[CoBrI(ONO_2)_2]^{2-}$	5.99	15.34	362	756	0.78

B_o = 967 cm^{-1} = Racah parameter for the free metal ion (8).
B = Racah parameter for the metal ion in the complex.
*log ε values in parentheses.
1kK = 1000 cm^{-1}

TABLE 5: RESULTS SHOWING ANTIMICROBIAL ACTIVITY OF THE COABLT COMPLEXES.

Sample solution	E. coli	Ps. Aeruginosa	B. cereus	Staph. Aaureus	Candida albicans
1	+ +	+ +	+ +	+ +	+ +
2	+ + +	+ +	+ +	+ + + +	+ +
3	+ +	+ +	+ + +	+ +	+ +
4	+ + +	+ +	+ + +	+ +	+ +
5	+ + + +	+ +	+ + +	+ + + +	+ +
6	+ + + +	+ + +	+ + +	+ + + +	+ + + +
7	+ + + +	+ + +	+ + +	+ + + +	+ + + +
8	+ + +	+ +	+ + +	+ + + +	+ + + +
9	+ + + +	+ +	+ + +	+ + + +	+ + + +
10	+ + +	+ +	+ +	+ + + +	+ +
11	+ +	+ +	+ +	+ +	+ +
Cobalt (II) Chloride	+ +	+ +	+ +	+ +	+ +
TAC	-	-	-	-	-
QAC (+ ve control)	+ + + +	+ + +	+ + + +	+ + + +	+ + + +

The second transitions were calculated and were found in the 6000cm^{-1} neighbourhood.

All the complexes gave broad bands in the 1400-19000 cm^{-1} region. The iodo-complexes in particular show a band in the 25000 -30000 cm^{-1} (logε, 3 - 3.5) region, which is likely to be of charge-transfer origin. A very broad and symmetric band in the range 44000 - 46000 (logε, 3.5 - 4.1) found in the spectra of the complexes are due to intra-ligand transitions.

The values of the crystal field parameters indicated in Table 4 were determined using "Transition Energy Ratios"(10). The Dq values obtained from these calculations range from 294 to 370 cm^{-1} while the Racah parameter B, falls in the 718 - 773 cm^{-1} range compared with B = 967 cm^{-1} for the free metal ion.

Previously reported tetrahalocobaltate(II) ions have characteristic greenish to bluish colours diagnostic of tetrahedral geometry(1,11). The colour of the complexes(1-11) reported in this work range from green to dark blue(Table 1).

Massabni and Serra(12) attributed $CoL_2(NO_3)_2$ complexes having violet to pinkish colours to octahedral geometry where the nitrate groups behave as bidentate species with β > 0.80 values.

Consequently, Cobaltate (II) complexes having greenish to blue colour and a β value less than 0.80 should be considered diagnostic for cobalt (II) in a tetrahedral environment.

Table 5 shows the antimicrobial activity of the Cobalt (II) complexes. The results show that Cobalt (II) complexes are showing activity either comparable with or greater than that of the simple cobalt (II) chloride. In aqueous solutions, both complex and Co(II) chloride yield $[Co(H_2O)_6]^{2+}$ cation, and in addition, the TAC also produces $(C_2H_5)_4N^+$ ions which probably enhances the activity of these complexes more than a simple Co(II) chloride.

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