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EBS/83/145

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July 12, 1983

To: Members of the Executive Board

From: The Secretary

Subject: Indonesia - Use of Fund Resources - Compensatory Financing Facility

Attached for consideration by the Executive Directors is a paper on a request expected to be received from Indonesia for a purchase equivalent to SDR 360 million under the compensatory financing facility. A draft decision appears on page 21.

This subject will be brought to the agenda for discussion on Wednesday, July 27, 1983.

If Executive Directors have technical or factual questions relating to this paper prior to the Board discussion, they should contact Mr. Chu, ext. 73753.

Att: (1)

CONFIDENTIAL

INTERNATIONAL MONETARY FUND

INDONESIA

Use of Fund Resources--Compensatory Financing Facility

Prepared by the Research Department and the Asian Department

(In consultations with the Exchange and Trade Relations, Legal, and Treasurer's Department)

Approved by R. R. Rhomberg and H. Neiss

July 11, 1983

The Managing Director has been informed that the Indonesian authorities will shortly request a purchase of SDR 360 million (50 per cent of quota), under the compensatory financing decision. The request, the first by Indonesia, is being made with respect to a shortfall in merchandise exports for the 12 months ended March 1983. If approved, the purchase would raise the Fund's holdings of the member's currency from 109.0 per cent to 159.0 per cent of quota.

This paper, which is being circulated in advance of the formal request from Indonesia, is presented in five sections and two annexes. The sections deal with: (1) the balance of payments position and cooperation with the Fund; (2) estimation of the export shortfall; (3) causes of the shortfall and export prospects; (4) repurchase; and (5) staff appraisal and proposed decision. Annex I contains a brief description of Indonesia's oil and natural gas industry and its recent policy, and Annex II summarizes Fund relations with Indonesia.

1. Balance of payments position and cooperation with the Fund

a. Balance of payments position

Indonesia's balance of payments has recorded large variations in recent years, reflecting wide fluctuations in export earnings and a trend of rapidly growing imports. During 1979/80-1980/81 (April/March), the current account shifted to sizable surpluses of about SDR 1.5 billion per year, as gross export earnings nearly doubled to SDR 17 billion over the two-year period, mainly on account of sharply increased oil prices; improved prices for other primary commodities also contributed. The overall surplus also widened significantly, and foreign asset holdings of both deposit money banks and the monetary authorities increased appreciably (Table 1.)

Table 1. Indonesia: Balance of Payments, 1978/79-1983/84 1/

(In millions of SDRs)

	1978/79	1979/80	1980/81	1981/82	1982/83 Prel.	1983/84 Proj.
A. Current account	-995	1,587	1,523	-2,660	-6,289	-6,000
Exports, f.o.b.	8,943	13,486	16,947	18,233	16,550	15,900
Non-oil	(3,131)	(4,758)	(4,338)	(3,511)	(3,565)	(4,096)
Oil/LNG	(5,812)	(8,728)	(12,609)	(14,722)	(12,985)	(11,804)
Imports, non-oil, c.i.f.	-5,939	-6,960	-9,209	-12,625	-14,173	-13,592
Oil/LNG sector current payments 2/	-2,649	-3,351	-4,353	-6,256	-6,409	-5,958
Non-oil services and transfers	-1,350	-1,588	-1,862	-2,012	-2,257	-2,350
B. Capital account (net)	1,504	1,454	1,738	3,300	3,600	4,362
Public sector (net)	1,228	1,481	1,645	2,922	4,278	3,948
Receipts	1,908	2,165	2,387	3,919	5,467	5,216
ODA	(943)	(1,163)	(1,204)	(1,053)	(1,279)	(1,350)
Non-ODA	(965)	(1,002)	(1,183)	(2,866)	(4,188)	(3,866) 3/
Amortization	-680	-684	-742	-997	-1,189	-1,268
Miscellaneous capital (net) 4/	198	-1,035	-291	101	370	78
Direct investment (net)	213	167	109	123	285	336
Errors and omissions 5/	-135	841	275	154	-1,333	--
C. SDR allocation	50	50	49	--	--	--
D. Overall balance	559	3,091	3,310	640	-2,689	-1,638
E. Financing (increase in assets -)	-559	-3,091	-3,310	-640	2,689	1,638
Net official assets	-485	-1,638	-2,397	406	2,024	37
Of which: RP in IMF	(-1)	(-13)	(-84)	(-36)	(-16)	(218)
BSFF	(--)	(--)	(--)	(--)	(65)	(--)
CFF	(--)	(--)	(--)	(--)	(--)	(360)
DMBs net assets	-74	-1,453	-913	-1,046	665	194
Compensatory commercial borrowing	--	--	--	--	--	1,407 2/
Memorandum items:						
Monetary system (net)	2,698	5,789	9,099	9,739	7,050	6,819
Assets	3,186	6,309	9,569	10,285	7,996	...
Official assets	(2,333)	(3,917)	(6,311)	(5,905)	(3,946)	(...)
DMB assets	(853)	(2,392)	(3,258)	(4,380)	(4,050)	(...)
Liabilities 6/	488	520	470	546	946	...
Monetary system gross foreign assets/non-oil imports (in months)	6.4	10.9	12.5	9.8	6.8	...
Current account/GDP (in per cent)	-2.5	4.0	2.7	-3.5	-7.2	-8.0

Sources: Data provided by the Indonesian authorities and staff estimates.

1/ Fiscal years ending March.

2/ Includes payments for profits, cost recovery, and goods and services, as well as oil imports.

3/ Excludes SDR 1,407 million of commercial borrowing which has been included as a financing item. Prior to 1983/84, the proceeds of bonds and syndicated loans were, as a matter of policy, entirely utilized for project finance. The allocation of SDR 1,407 million to financing reflects the authorities' designation of the amount as not intended for project finance.

4/ Mainly oil/LNG trade credits; a (-) means an extension of credit.

5/ Includes valuation changes of external reserves.

6/ Almost entirely the liabilities (short-term) of deposit money banks (DMBs).

There was a marked change in 1981/82, however, as the current account deteriorated by over SDR 4 billion, mainly due to a large increase in non-oil imports (SDR 3.4 billion). Non-oil exports declined by about SDR 0.8 billion, reflecting both lower prices for most commodities and a sizable decline in earnings from timber exports, as log export volume was limited to promote conservation as well as domestic processing and exports of processed timber products. Although gross export earnings from oil and LNG increased by SDR 2.1 billion during the year, net oil sector earnings increased by only SDR 0.2 billion because of increased payments of recoverable expenses to the producing companies. Despite the sharpness of the current account turnaround in 1981/82, the banking system as a whole recorded an increase in its net foreign asset position; however, official asset holdings fell despite an increase in the Government's use of syndicated loans for project financing.

In 1982/83, the strain on the balance of payments intensifed, and the current account deficit rose to over SDR 6 billion--7 per cent of GDP. Much of the deterioration was accounted for by a decline in exports, reflecting primarily a fall in oil earnings due to weak market demand and a consequent reduction in the volume of shipments. Non-oil exports grew by a small amount, but were nevertheless 25 per cent below their 1979/80 peak value. Import growth slowed, mainly because of slower growth in private sector imports. Public sector net capital inflows increased to SDR 4.3 billion in 1982/83, with most of the increase accounted for by a further rise in government borrowing from commercial sources, mainly financial institutions. Nevertheless, over 40 per cent of the 1982/83 current account deficit was financed by a decline in the net foreign assets of the monetary system, mostly reflecting a fall in official reserves. During the year, Bank Indonesia adopted measures to encourage the state banks, which comprise over 80 per cent of the commercial banking system, to sell to it a part of their accumulated foreign assets. These sales amounted to about SDR 1.4 billion. The banking system's gross assets stood at SDR 8 billion at the end of March 1983 (of which official assets amounted to SDR 4 billion).

b. Cooperation with the Fund

The request for a CF purchase may be met only if the Fund is satisfied that the member will cooperate with the Fund in finding appropriate solutions to its balance of payments difficulties. The Executive Board last discussed Indonesia's economic situation and policies at EBM/83/6, on January 7, 1983. Executive Directors commended the authorities for the rapid rate of growth and favorable price performance that had been achieved in recent years. They noted particularly that by saving a significant portion of oil earnings the authorities had put the country in a favorable position to weather the worsening of the external environment and to support future adjustment. Directors commended the authorities for the adjustment efforts that had been undertaken, particularly fiscal measures, including substantial increases in petroleum and fertilizer prices, the austere government wage policy, strict economies on recurrent expenditures, and efforts to improve tax administration. Nevertheless, Directors expressed concern about the size of the emerging deficit in the current account for 1982/83 and stressed the importance of persevering in the adjustment effort. They emphasized in particular the continuation of flexible exchange rate management so as to achieve the improved competitiveness that was essential for attaining long-term balance of payments, growth, and employment objectives. Directors also saw need for continuing action to strengthen the fiscal position and measures to improve the efficiency of the banking system, as well as a more flexible interest rate policy.

The decrease in the oil export price by US$5 per barrel announced on March 15, 1983--and its implications for the budget, the current account deficit, and future resource availability--was the catalyst for a series of rapid and decisive actions taken by Indonesian policymakers. Without additional adjustment measures, the large investment program that had been formulated to deepen the industrial base over the Fourth Plan (1984/85-1988/89), combined with adverse external circumstances, would have implied a further rise in Indonesia's current account deficit to perhaps SDR 9 billion or more in 1983/84, with subsequent large imbalances in prospect. A deficit of this size clearly could not be sustained in the medium-term as it would have resulted in a further and dangerous rundown of reserves or, alternatively, equally dangerous large scale commercial borrowing. To avoid either of these outcomes, the authorities have taken major adjustment measures through exchange rate, fiscal, and monetary policies. These measures were discussed with a staff mission that visited Indonesia during the second half of March to clarify various issues relating to a CF request.

On March 30, 1983 the Government announced a 28 per cent devaluation of the rupiah. 1/ This change was sufficient to regain the loss in competitiveness estimated to have occurred since the last major devaluation in 1978. The move was aimed, in the short run, at curtailing import demand and halting, if not reversing, speculative capital outflows; and, in the longer run, at improving the base for the necessary growth in non-oil exports and import substitutes. Moreover, the devaluation was a strong reaffirmation of the Government's commitment to an open exchange system; the authorities have also stressed their intention to manage the exchange rate flexibly so as to provide sufficient support for their ongoing balance of payments adjustment.

Although the devaluation was a necessary step in adjusting to the changed external environment, the authorities recognized that this step alone would not be sufficient to redress the balance of payments difficulties. Therefore, the Government immediately undertook a comprehensive review of the public sector investment program. The aim was to reduce the burden on the current account balance, preserve debt service capacity, and shift investment

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1/ Formal notification of the change and the authorities' views on the exchange rate change and policies as well as their intentions with regard to the investment rephasing were provided in EBS/83/69, 3/31/83.

to labor-intensive projects so as to maintain maximum employment opportunities in what would likely be, at least for the next year or two, a lower-growth environment. Negotiations with contractors and creditors were started following a decision early in May to postpone or rephase 47 investment projects that would have required about $10 billion in external expenditure over the next few years, with as much as $3 billion of savings accruing in 1983/84.

Most recently, in a move designed to boost private sector savings and allocate funds for domestic investment more efficiently, the Government announced on June 1, a substantial reform of interest rate and credit policies. This included the elimination of credit ceilings which had been maintained by bank and sector, the limiting of access to central bank rediscount credits to only the highest priority categories, and the freeing of most categories of state bank interest rates on deposits and loans.

Finally, the staff understands that the Government is also progressing with its review of taxation policy. It may be possible to begin later this year implementation of some parts of the comprehensive tax reform package that is to underlie the Fourth Development Plan beginning in 1984/85.

In the staff's view, the measures undertaken by the Indonesian authorities are an adequate response to the recent deterioration in the external position. The devaluation and the investment rephasing should result in a substantial reduction in the current account deficit from what it would have been without adjustment. The latest balance of payments projections for 1983/84 provided by the authorities are given in Table 1. The staff believes that these estimates reflect reasonably well the impact of the measures taken to date and expects these measures to be generally sufficient to meet the authorities' goal of limiting the current account deficit to SDR 6 billion ($6.5 billion) or less. On capital account developments, the sizable reflows of private capital evidenced by Bank Indonesia's net purchases of foreign exchange in April and May are encouraging, as is the reaction of the international financial community to the Government's adjustment efforts. The latter was reflected in the concluding statement of the recent IGGI meeting where "the members of the Group expressed overwhelming support for the recent economic policy actions taken by the Indonesian Government to preserve financial stability, while at the same time laying the foundations for longer-term structural adjustment."

On the domestic side, the authorities have stated that this year's budget will at least be in balance and may possibly show a small surplus. Even within this target, unless revenue falls substantially below budgeted levels, the planned reduction in spending on capital-intensive investment projects should provide some scope for increased budgetary outlays on labor-intensive projects. Flexibility in shifting expenditure will be important in keeping to a minimum the contractionary impact of the investment rephasing on domestic employment and growth. Similarly, the rephasing, together with general budgetary restraint, allows increased scope for private sector investment, which has also been given essential support by the relative price shifts resulting from the devaluation. In addition, over time the private sector will benefit substantially from the greater domestic saving and the more efficient allocation of credit resources that is expected to result from the monetary reforms. Other complementary measures are currently under consideration to support the actions already taken.

Indonesia does not maintain unapproved exchange practices; approval of the retention until April 1, 1984 of three multiple currency practices arising from collection procedures for export taxes was granted at EBM/83/6, January 7, 1983. The authorities have agreed to hold the 1983 Article IV consultation discussions in early August 1983, advancing the annual schedule by about three months.

The request for a CF purchase is expected to include a statement that Indonesia will cooperate with the Fund in finding appropriate solutions to its balance of payments difficulties.

2. Estimation of the export shortfall

The Indonesian authorities have requested that the 12 months ended March 1983 be treated as the shortfall year. Since comprehensive statistics on Indonesia's actual exports are available through December 1982, the staff, in conjunction with the authorities, have made estimates for the last three months (January-March 1983) of the shortfall year. 1/

The value of Indonesia's exports in the shortfall year is estimated at SDR 16,550 million compared to average exports of SDR 17,578 million in the pre-shortfall years--a drop of 6 per cent. For the two post-shortfall years, exports are projected to recover by about 2 per cent to an average level of SDR 16,917 million, and the shortfall for the 12 months ended March 1983 is calculated at SDR 553 million, which is roughly 1.5 times as large as the proposed purchase of SDR 360 million (Table 2).

3. Causes of the shortfall and export prospects

The estimated shortfall of SDR 553 million is accounted for largely by a shortfall of SDR 473 million estimated for earnings from non-energy exports, i.e., products other than oil and liquified natural gas (LNG). The value of oil exports (mostly crude) showed a small excess, while the value of LNG exports was exactly equal to its five-year trend and hence had no shortfall (Table 3). Both oil and LNG exports registered volume shortfalls, caused by low external demand in the case of oil and by a

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1/ The value of exports for the last three months of the shortfall year is estimated at SDR 3,846 million, 11 per cent lower than the corresponding three months in the preceding year, and 9 per cent lower than the average for the first nine months of the shortfall year. The decline by 9 per cent is entirely due to a decline by 15 per cent in oil exports; the oil export data are estimated on the basis of preliminary export data through February and price data through March.

slowdown in the growth of production capacity expected to be followed by a substantial increase in the near future in the case of LNG. These volume shortfalls were almost exactly offset by excesses in unit values reflecting declines in oil and natural gas prices expected in the post-shortfall period (Tables 4 and 5).

Table 2. Indonesia: Estimation of the Export Shortfall

(In millions of SDRs)

	Years Ending March		
	Average 1981-82	1983 2/	Projected 1/ Average 1984-85
Exports	17,578	16,550	16,917
Shortfall		553	
Proposed purchase		360	

1/ Based on the judgmental forecast of earnings given in Table 3.
2/ Based on estimated data for the last three months (January-March 1983).

The shortfall in non-energy exports is attributable mainly to shortfalls estimated for timber (SDR 160 million), natural rubber (SDR 158 million), tin (SDR 44 million), and "other" exports (SDR 54 million); smaller shortfalls are also estimated for coffee (SDR 18 million) and palm oil (SDR 17 million). The shortfalls in non-energy exports were due more to price factors than to volume factors. A sustained downward movement in world industrial activity in recent years caused sharp declines in the international prices of Indonesia's main non-energy primary export commodities and to some extent also reduced demand for these exports.

The decline in Indonesia's aggregate exports in the shortfall year resulted largely from low demand for oil, a slowdown in the production of LNG due to capacity constraints, and weak external demand and low prices for some other main exports (rubber, timber, palm oil, and coffee). Indonesia's export earnings are projected to decline by 4 per cent in the first post-shortfall year and to increase by 13 per cent in the second.

a. Oil

The world oil market has exhibited extreme volatility in the past five years. International oil prices, after increasing sharply in 1979-80, have softened considerably since 1981, as world demand for oil continued

Table 3. Indonesia: Export Earnings and Shortfalls by Major Commodities

	Years Ending March								Shortfall	
	1978	1979	1980	1981	1982	1983	1984	1985	Geometric	Arithmetic
	(In millions of SDRs)									
Total exports	9,179	8,943	13,486	16,947	18,233	16,550	15,900	18,000	553	576
Oil	6080	5,406	7,692	10,967	12,689	10,790	9,630	9,975	-33	20
LNG	134	406	1,036	1,642	2,033	2,195	2,174	3,200	0	54
Non-energy	2,965	3,131	4,758	4,338	3,511	3,565	4,096	4,825	473	502
Timber	798	896	1,674	1,298	824	823	923	1,130	160	177
Logs	(745)	(785)	(1,588)	(1,108)	(436)	(276)	(202)	(110)	(36)	(150)
Plywood	(3)	(11)	(36)	(69)	(173)	(275)	(390)	(570)	(-39)	(20)
Sawn timber	(50)	(100)	(50)	(118)	(211)	(263)	(319)	(436)	(-16)	(6)
Other timber	(--)	(--)	(--)	(3)	(4)	(9)	(12)	(14)	(-2)	(-1)
Rubber	514	614	849	638	667	567	715	885	158	167
Coffee	532	401	553	455	296	385	428	480	18	24
Palm oil	171	174	198	137	69	70	82	90	17	20
Tin	213	254	299	352	379	309	334	396	44	45
Others	737	792	1,185	1,258	1,276	1,411	1,614	1,844	54	70
	(Percentage change)									
Total exports		-3	51	26	8	-9	-4	13		
Oil		-11	42	43	16	-15	-11	4		
LNG		203	155	58	24	8	-1	47		
Non-energy		6	52	-9	-19	1	15	18		
Timber		12	87	-22	-36	-0	12	22		
Logs		(5)	(102)	(-30)	(-61)	(-39)	(-27)	(-45)		
Plywood		(267)	(227)	(92)	(151)	(59)	(42)	(46)		
Sawn timber		(100)	(-50)	(136)	(79)	(25)	(21)	(37)		
Other timber		(--)	(--)	(--)	(33)	(125)	(33)	(17)		
Rubber		19	38	-1	-20	-15	26	24		
Coffee		-25	38	-18	-35	30	11	12		
Palm oil		2	14	-31	-50	1	17	10		
Tin		19	18	18	8	-18	8	19		
Others		7	50	6	1	11	14	14		

Table 4. Indonesia: Movements of Exports and Underlying Factors

	Years Ending March					
	1979	1980	1981	1982	1983	Projected Average 1983-85
	(Annual percentage change)					
A. Exports						
Value (U.S. dollars)	5	54	24	-3	-14	1
(Value in SDRs)	(-3)	(51)	(26)	(8)	(-9)	(1)
Oil	-5	45	41	4	-19	-7
LNG	218	161	57	11	2	12
Others	14	55	-9	-27	-4	15
Volume	0	-6	-2	-6	-13	8
Oil	-6	-12	-2	-4	-18	4
LNG	207	72	14	8	3	25
Others	7	1	-15	-23	2	6
Unit value (U.S. dollars)	4	64	30	3	-3	7
Oil	0	67	45	9	-2	-10
LNG	4	51	38	3	-1	-10
Others	6	53	0	-15	-11	9
B. Underlying factors						
Industrial production 1/	5	5	-2	0	-4	
World oil production 2/		3	-6	-7	-5	
World oil export volume 3/	1	5	-13	-14	-15	
	(Per cent of total)					
Indonesia's shares 4/ in						
World oil production	2.5	2.4	2.6	2.7	2.3	
World oil exports	4.4	3.7	4.2	4.7	4.5	
	(Annual percentage change)					
Official oil export prices (U.S. dollars)						
World	2	73	44	5	-5	
OPEC marker	2	59	48	9	1	
Indonesia	1	67	43	8	-2	
World market prices of non-energy primary products 5/ (U.S. dollars)	1	43	-5	-21	-5	

1/ Weighted average for industrial countries.
2/ Crude oil.
3/ Staff estimates. Net exports of crude and products by 29 net oil-exporting countries.
4/ Figures show the levels of shares.
5/ Based on the weighted average of international market prices of Indonesia's four major export commodities: Timber, rubber, coffee, tin, and palm oil.

Table 5. Indonesia: Value, Volume, and Unit Value Indices by Major Commodities

(1983=100; in terms of SDRs)

	Value Share Total Exports in 1983 (In per cent)	Years Ending March								Shortfall in Per cent of Level in Shortfall Year
		1978	1979	1980	1981	1982	1983	1984	1985	
Value	91.6	56	54	81	104	112	100	94	107	3.2
Oil	65.2	56	50	71	102	118	100	89	92	-0.3 (excess)
LNG	13.3	6	19	47	75	93	100	99	146	0.2
Non-energy	13.1	103	108	165	143	104	100	115	138	18.7
Timber	5.1	96	108	202	157	100	100	112	137	19.2
Logs	(1.7)	(270)	(284)	(575)	(401)	(158)	(100)	(73)	(40)	(13.1)
Plywood	(1.7)	(1)	(4)	(13)	(25)	(63)	(100)	(142)	(207)	(-14.3)(excess)
Sawn timber	(1.6)	(19)	(38)	(19)	(45)	(80)	(100)	(121)	(166)	(-6.3)(excess)
Other timber	(0.1)	(--)	(--)	(--)	(33)	(40)	(100)	(133)	(156)	(-21.3)(excess)
Rubber	3.4	91	108	150	148	118	100	126	156	28.0
Coffee	2.3	138	104	144	118	77	100	111	125	4.7
Palm oil	0.4	244	249	283	196	98	100	117	129	24.0
Tin	1.9	69	82	97	114	123	100	108	128	14.2
Volume		133	133	125	122	115	100	106	118	11.9
Oil		156	147	129	127	122	100	104	108	11.7
LNG		15	46	79	90	97	100	115	170	11.3
Non-energy		138	147	149	127	98	100	104	114	8.1
Timber		209	219	214	162	101	100	104	115	14.4
Logs		(596)	(611)	(600)	(406)	(160)	(100)	(66)	(33)	(7.2)
Plywood		(1)	(4)	(30)	(44)	(72)	(100)	(130)	(171)	(-6.8)(excess)
Sawn timber		(33)	(46)	(12)	(35)	(71)	(100)	(115)	(142)	(-16.5)(excess)
Other timber		(--)	(--)	(1)	(40)	(55)	(100)	(117)	(134)	(-19.2)(excess)
Rubber		99	106	115	108	100	100	105	115	5.5
Coffee		63	81	83	81	77	100	105	110	-6.3 (excess)
Palm oil		192	182	193	165	80	100	107	113	9.8
Tin		92	97	103	115	117	100	102	112	9.0
Unit value		42	41	65	85	97	100	89	91	-7.8 (excess)
Oil		36	34	55	80	96	100	86	86	-10.7 (excess)
LNG		41	40	60	83	96	100	86	86	-10.0 (excess)
Non-energy		75	74	111	112	106	100	111	122	10.0
Timber		46	49	95	97	99	100	108	119	4.3
Logs		(45)	(47)	(96)	(99)	(99)	(100)	(110)	(120)	(5.3)
Plywood		(95)	(91)	(43)	(57)	(87)	(100)	(109)	(121)	(-8.1)(excess)
Sawn timber		(58)	(83)	(154)	(127)	(113)	(100)	(105)	(117)	(12.2)
Other timber		(--)	(--)	(--)	(83)	(81)	(100)	(114)	(116)	(-2.3)(excess)
Rubber		91	103	130	136	117	100	120	136	21.0
Coffee		221	129	173	146	100	100	106	113	11.8
Palm oil		127	137	147	119	123	100	110	114	12.9
Tin		75	85	94	99	105	100	106	114	4.7

to decline because of a severe recession, destocking of world oil reserves, continued conservation and substitution efforts in consuming countries, and delayed effects of the sharp price increases in 1979-80. Although the pattern of export fluctuations differed considerably among countries, earnings from oil increased sharply for most of the oil exporting countries during 1979-80, but either declined or grew more slowly during 1981-83. 1/ As described in Annex I of this paper, the thrust of Indonesia's recent oil policy has been focused on active promotion of exploration and production of oil, expansion of domestic refinery capacity, and moderation of the fluctuation of official export prices of oil. The purpose of this last element of policy is to maintain stable trading relationships with foreign buyers over an extended period of time. Various incentives have been introduced to encourage foreign oil companies' exploration activities. Annual production of crude oil had been maintained at the capacity output level of roughly 580 million barrels, or about 1.6 million barrels per day (mbd), through 1981, while exports declined steadily because of growing domestic consumption caused by an expansion in the domestic economy and relatively low domestic prices of oil. In 1982, Indonesia's exports of oil were constrained by external demand--rather than capacity to produce--for the first time in recent years. Indonesia's export prices of oil increased significantly less than the world average during 1979-80, but declined less than the world average during 1981-82 (Annex I).

After increasing by about 30 per cent per annum during the two pre-shortfall years (1980/81-1981/82), earnings from oil declined by 15 per cent in 1982/83, the shortfall year. The 15 per cent decline in the value of exports is the result of an 18 per cent decline in export volume, only partly offset by a 4 per cent increase in unit value. The volume of both crude and refined petroleum exports declined, although the share of refined oil in total oil exports was maintained at about 11 per cent in volume terms.

The decline by 18 per cent in export volume of oil in the shortfall year reflected generally weak world demand for oil, aggravated particularly in the last quarter of the shortfall year by the prevalent expectation of foreign buyers that a significant decline in world oil prices was imminent. This last development led to a sharp drawdown of world oil stocks, which caused a further weakening of demand for oil exports. The decline in Indonesia's export volume in the shortfall year was slightly more than the decline in world export volume over the same period. Indonesia's share in world exports therefore declined somewhat in the shortfall year, but the market share in the shortfall year was higher than the pre-shortfall period average (Table 4). Indonesia's production of oil declined sharply from about 1.6 mbd during the two pre-shortfall years to about 1.3 mbd in the shortfall year. Although this sharp decline in production led to a significant drop in Indonesia's share in world oil production in the shortfall year, the main reasons for the decline were weak demand, both external and internal, and greater utilization of domestic oil resources

1/ An analysis of the world oil market and exports is given in SM/83/27 (5/16/83).

by major oil importing countries. 1/ As the world oil market deteriorated, an OPEC production quota was set for Indonesia at 1.30 mbd in March 1982. During the second quarter of 1982, however, owing to weak external demand, production fell below quota, averaging 1.27 mbd. After OPEC failed to re-endorse quotas in July 1982, Indonesia produced oil subject to demand constraints during the subsequent three quarters, thus at times maintaining production higher than its March 1982 production quota. Indonesia's production fell to 1.14 mbd in the first quarter of 1983, as the world oil market softened further, and buyers withheld liftings in anticipation of lower prices. Indonesia's export volume during that quarter is estimated to have fallen to 0.89 mbd compared with 1.14 mbd for 1981/82. Indonesia's domestic consumption of oil, after increasing steadily for several years, declined substantially in the shortfall year owing both to the slowdown in the domestic economy and to an increase in domestic oil prices by 50 per cent made effective as of January 1982 (Table 6).

Table 6. Indonesia: Oil Balance

(In millions of barrels)

	Years Ending March					
	1978	1979	1980	1981	1982	1983
Production of crude	615	589	577	581	570	459
(In mbd)	1.68	1.61	1.58	1.59	1.56	1.26
Imports	51	48	41	42	42	52
Crude	27	25	25	24	34	30
Refined	24	23	16	13	8	22
Exports	533	503	443	433	417	341
Crude	484	462	391	379	370	303
(In per cent of production)	(79)	(78)	(68)	(65)	(65)	(66)
Refined	49	41	51	54	46	38
Consumption 1/	121	124	163	171	182	159
(Per cent of change)		(2)	(31)	(5)	(6)	(-13)

1/ Derived as residual. Consumption therefore includes errors and omissions in the petroleum balance statistics.

1/ Industrial countries' production of oil increased by about 1 per cent in 1982, while their net imports declined by 12 per cent.

The sharp deceleration of the increase in export unit values of oil in SDR terms--from 36 per cent per annum in the pre-shortfall years to 4 per cent in the shortfall year--reflected an actual decline if measured in U.S. dollar terms. After increasing by 26 per cent per year during the pre-shortfall years, Indonesia's export unit values of oil declined by 1 per cent in the shortfall year to US$34.6 per barrel. Because world oil prices declined by about 5 per cent during the shortfall year, Indonesia's official prices averaged about 7 per cent above the world average, compared with about 2 per cent during the two pre-shortfall years, and about 5 per cent in earlier years. 1/

During the post-shortfall period, the volume of oil exports is projected to recover moderately at about 4 per cent per annum. This projection assumes a gradual recovery in world industrial activity and a consequent increase in the demand for oil. Projected exports of oil are compatible with projected domestic production and a gradual increase in domestic consumption of oil. Oil export prices are assumed to average US$29.70 per barrel during the two post-shortfall years, the level agreed upon by the OPEC in March 1983.

On this basis, oil exports registered a small excess (SDR 33 million) in the shortfall year. Although world demand for oil was a major factor in determining the profile of earnings from oil in recent years, Indonesia's petroleum policy was also important in the determination of Indonesia's volume of oil exports. Indonesia's policy was aimed at maximizing exploration and production of oil during the period. Indonesia's external pricing policy, which resulted in a moderated price increase during the period of rising world oil prices, and the Government's maintenance of low domestic prices of oil appear to have contributed to a relatively moderate rise in earnings from oil during the pre-shortfall years. Although Indonesia was relatively slow in reducing official prices of oil during the shortfall year, the effects of its earlier moderate price increases appear to have prevented a decline in its market share. As indicated in Table 4, Indonesia's share in world export volume was somewhat higher in the shortfall year than the pre-shortfall period average, despite a rise in the price differential between Indonesia's official prices and world average prices.

It is not evident that a more flexible pricing policy in the shortfall year would have raised Indonesia's earnings from oil above the medium-term trend and thus reduced the overall shortfall. In the rapidly weakening world oil market situation, such a pricing policy may have resulted in a further decline in Indonesia's oil earnings. The market's expectation of an imminent price decline, especially during the first quarter of 1983, was so prevalent that Indonesia's export volume may not have increased significantly in the

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1/ Because of the moderate pricing policy pursued by Indonesia, its average official selling price was about the same as the world average during some quarters of 1979 and 1980, although Indonesia's crudes are of relatively higher quality than average crudes internationally traded. Indonesia's slow downward adjustment of prices not only restored a normal price differential of about 3 per cent, but also led, during the shortfall year, to a temporary price differential exceeding the normal level.

short run even after a substantial price cut; a price cut in such a situation could have reduced oil earnings even further in the shortfall year. Moreover, although Indonesia is a relatively small exporter of oil, a significant price cut by Indonesia in such a weakening market condition could have triggered competitive price cuts by other oil exporters, resulting in lower earnings for all oil exporters.

b. Liquified natural gas

Exports of liquified natural gas (LNG) began in 1977/78, with completion of two facilities with a total capacity of 409 billion cubic feet. Since then, exports have risen sharply, and for the past two years have reached capacity limits. The price of LNG has closely followed the price of oil, since it is customary to link the price, on a Btu 1/ equivalent basis, to oil prices; Indonesia has followed this practice with an additional small adjustment to account for changes in exchange rates. 2/

Both the volume and the unit values of Indonesia's LNG rose slightly in the shortfall year, and earnings increased by 8 per cent. With prospective increases in LNG capacity that are due to come on stream at the end of 1983 and beginning of 1984, total LNG capacity will increase to 741 billion cubic feet per year, or 81 per cent more than at present. To account for a gradual utilization of this new capacity, LNG export volume is forecast to grow 15 per cent in the first post-shortfall year, and an additional 48 per cent in the second. All existing and prospective volumes have already been contracted for by Japan on a long-term (20 year) basis. The price of LNG, which was lowered in March 1983 in line with oil prices, is projected to remain at about its present level throughout the two post-shortfall years. Based on these movements, an overall price excess is exactly offset by a volume shortfall; earnings in the shortfall year were at the trend value.

c. Non-energy products

(1) Timber

Earnings from timber exports, Indonesia's third most important export after oil and natural gas, are estimated to account for 5 per cent of total export earnings in the shortfall year and to contribute SDR 160 million to the overall shortfall.

Most of Indonesia's unprocessed timber is exported regionally while processed wood is shipped to European and North American, as well as to Asian markets. Since 1978, the composition of timber exports has shifted increasingly toward processed timber and away from the export of logs. This shift is a direct result of a long-term Government policy, which has aimed at conserving the timber resources of Indonesia and increasing the value added of timber exports by restricting the volume of log exports

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1/ British Thermal Unit, a measurement of caloric value.
2/ A further description of Indonesia's natural gas industry is contained in Annex I.

through quotas, by stimulating the development of the wood processing industry through the elimination of export duties on processed wood, and by linking log export quotas to installed wood processing capacity. Because of the time required to develop wood processing facilities, the volume of timber exports, in the aggregate, fell in the pre-shortfall period and by 1981/82 amounted to less than half the volume attained in 1977/78. In the shortfall year, the total volume of timber exports is estimated to have declined only slightly because the exports of processed timber continued to expand. Although wood processing facilities had expanded sharply, the growth of sales of wood products moderated in the shortfall year, reflecting weak foreign demand associated with the world recession. With the shift in the composition of timber exports to woods with a higher value added, the decline in the volume of sales was just offset by a strengthening in the average export price and the value of exports in the shortfall year is estimated to have remained virtually unchanged at SDR 823 million.

With a recovery in construction activity in Indonesia's major trading partners and the continued shift to more processed wood products, both the aggregate volume of timber exports and realized prices are projected to increase in the post-shortfall period. Total earnings from timber exports are projected to average SDR 1,021 million per year in the post-shortfall period, growing at an average annual rate of 15 per cent.

In line with the policy to phase out the export of unprocessed logs initiated in late 1978, the volume of <u>log exports</u> dropped precipitously in the pre-shortfall period, averaging only 6.7 million tons per year compared with the peak level 16.1 million tons realized in 1978/79. Indonesia's realized export prices, however, more than doubled during 1979/80, reflecting emerging regional supply constraints, but remained stagnant thereafter as foreign demand weakened. These trends are estimated to have continued through the shortfall year; the volume of log exports is estimated to decline further to 2.6 million tons and, with only a marginal increase in prices, earnings are estimated to have fallen by 39 per cent. Earnings from log exports in the post-shortfall period are projected to fall further, averaging only SDR 149 million per year, 46 per cent below the shortfall year level. With declining world supplies and a recovery in foreign demand, export prices are projected to rise at an average annual rate of 9 per cent. A shortfall of SDR 36 million is calculated for log exports.

Exports of processed wood products are calculated to have export excesses: <u>plywood</u> (SDR 39 million); <u>sawn timber</u> (SDR 16 million); and <u>other timber</u> (SDR 2 million). Earnings from these products continued their upward trend in 1983, although the rate of growth moderated compared with that realized in the pre-shortfall period despite the expansion of new production capacity. Exports were adversely affected in the shortfall year by weak foreign demand and the intensification of protectionist policies by major trading partners. Consequently, much of the new production capacity remained unutilized. Export earnings from processed wood products are projected to continue their upward trend in the post-shortfall period benefiting from further volume increases and higher prices.

(2) Rubber

Rubber production in Indonesia, the second largest producer of natural rubber, accounts for about 24 per cent of world production. Annual production has fluctuated widely in response to movements in international prices. Approximately 70 per cent of Indonesia's production is by smallholders who have traditionally been very responsive to price fluctuations; during periods of low prices, smallholders with alternative employment opportunities reduced their frequency of tapping. Indonesia also has large areas of old low-yielding trees, which are abandoned during periods of low prices and brought back into production when prices recover. Thus, when world market prices rose rapidly in 1976-80, production increased sharply; prices fell thereafter until in the last quarter of 1982 they were at half the level attained at the beginning of 1980.

With declining output and prices, earnings fell by 1 per cent and 20 per cent in the two pre-shortfall years and again by 15 per cent in the shortfall year. Prices are estimated to have declined by 15 per cent in the shortfall year. 1/ The volume of exports in the shortfall year remained at the 1981/82 level.

Prices in 1983/84 are expected to be approximately 20 per cent higher than the average experienced in the shortfall year because of a recovery in demand that began early in 1983 and is expected to continue. Combined with a slight increase in volume, earnings are forecast to increase by 26 per cent in 1983/84. Prices are expected to increase by 13 per cent in 1984/85 as the recovery in demand continues. A greater volume rise of 10 per cent is expected in 1984/85 as producers respond to the higher prices, resulting in a 24 per cent rise in earnings, but to a level still not much higher than that of 1979/80. As a result of these export movements, a shortfall of SDR 158 million is estimated for rubber, primarily because of low prices.

(3) Coffee

Indonesia's production of coffee almost doubled during the last half of the 1970s in response to the extremely high prices reached in 1976-77. Since 1978, however, prices had declined sharply until 1981, when they were less than half the 1977 level. The International Coffee Organization (ICO), of which Indonesia is a member, introduced export quotas in October 1980. As a result, Indonesia's volume of coffee exports declined to about 220 thousand tons in each of the two pre-shortfall years, 1980/81 and 1981/82, approximately 20 per cent less than the level reached before quotas were imposed. Export volume to nonquota markets (which sells at price discounts of up to

1/ After declining by 42 per cent in U.S. dollar terms between the first quarter of 1980 and the first quarter of 1982, the world market price of rubber remained fairly stable during 1982 following the beginning of buffer stock operations under the 1979 International Natural Rubber Agreement. In regard to its compulsory contribution to the buffer stock, Indonesia purchased SDR 37.4 million under the Fund's buffer stock financing facility in January, 1983 (EBS/82/135).

50 per cent from prices in quota markets) represented almost one third of Indonesia's total coffee exports in 1980/81 and 40 per cent in 1981/82; these relatively large sales were due to an active campaign by the Government to promote exports to non-ICO members. Earnings declined by 18 per cent and 35 per cent in 1980/81 and 1981/82, respectively, because of both lower prices and volumes.

In the shortfall year 1982/83, export volume increased sharply to about 285 thousand tons, primarily as a result of increased sales to nonquota markets, while Indonesia's ICO export quota rose only marginally. Although robusta coffee prices increased by about 20 per cent in the shortfall year, Indonesia's export unit values remained unchanged as a result of the larger share exported to the heavily discounted nonquota markets. Earnings in the shortfall year are estimated to have risen by 30 per cent.

Given high levels of world coffee stocks held by most producers, it is likely that ICO quotas will be maintained for at least another year. Small volume increases are projected for Indonesia in 1983/84 and 1984/85 on the assumption that it will continue to be successful in selling to nonquota markets. Price increases of about 7 per cent per year are forecast as it is expected that export quotas will continue to apply and that Indonesia will not experience further large increases in nonquota market sales. Earnings in the two post-shortfall years are expected to increase at an average rate of about 10 per cent. A shortfall of SDR 18 million is estimated for coffee resulting entirely from price movements.

(4) Palm oil

In response to rising prices in the late 1970s, palm oil production increased rapidly almost doubling from 1975 to 1980. Domestic demand for cooking oil also rose sharply during this period and could not be satisfied by increased domestic production. Faced with rapidly rising domestic prices for cooking oil in 1978/79, the Government levied a surtax on palm oil exports in order to ensure an adequate supply for the domestic market. Despite this surtax, export volume rose by 6 per cent in 1979/80 as international prices continued to increase.

When the international market for vegetable oils weakened in 1980/81, prices dropped by 19 per cent, and export volume declined by 15 per cent. Volume decreased by a further 52 per cent in 1981/82 as demand remained weak and domestic consumption continued to increase. As a result of these declines in both volume and prices, earnings in the two pre-shortfall years, 1980/81 and 1981/82, decreased by 31 per cent and 50 per cent, respectively. The surtax on palm oil exports was accordingly eliminated in April 1982.

In the shortfall year, export volume increased by an estimated 25 per cent primarily as a result of a large rise in output. Earnings only increased by an estimated 1 per cent, however, as prices declined by about 19 per cent because of record large world production of vegetable oils.

In 1983/84, prices are projected to recover by 10 per cent as world supply comes more into balance with demand. In April-May 1983, prices already were 14 per cent above average for the first quarter of 1983. With a projected volume increase of 7 per cent, earnings are forecast to increase by 17 per cent. Further modest rises in prices and volumes are projected for 1984/85 resulting in an increase in earnings by 10 per cent. A shortfall of SDR 17 million is estimated, resulting from both low volume and price.

(5) Tin

After increasing at an average annual rate of almost 20 per cent between 1978/79 and 1980/81, tin export growth slowed to a rate of 8 per cent in 1981/82, and then declined sharply by an estimated 18 per cent in the shortfall year. Export growth in the pre-shortfall years was a result of both rising volume and prices, but the shortfall in 1982/83 was caused primarily by lower volume.

Although tin accounts for only 2 per cent of total export earnings, Indonesia is the second largest world producer and exporter of tin and is a member of the Sixth International Tin Agreement. In the face of weak demand and ample supplies, the tin market has weakened considerably in the last two years. Since February 1982, the International Tin Council (ITC) has been supporting the price by buffer stock purchases and, since April 1982, by export controls. 1/ The export controls were intensified in July 1982 and so far have been extended through September 1983. These controls have called for about a 36 per cent reduction in Indonesia's export volume.

The tin price has been prevented from falling below the floor of the ITA, but remained at or close to it during the second half of 1982 and early 1983. In recent months, however, as a result of stabilization operations under the ITA and the prospect of increased demand, the tin price has risen by about 10 per cent from average for the second half of 1982. Prices are forecast to rise at an annual average rate of 7 per cent in 1983/84 and 1984/85. With only a slight volume increase forecast for 1983/84 and a 10 per cent increase for 1984/85, earnings are expected to average about 18 per cent higher in the post shortfall period than in the shortfall year. A shortfall of SDR 44 million is estimated, mostly as a result of low volume.

(6) "Other" exports

"Other" exports accounted for only about 8 per cent of total exports in the shortfall year. Metals (including nickel, copper, and aluminum) account for over one quarter of the value of this group of commodities. The largest remaining items are shrimp, textiles, tea, and rattan.

1/ In regard to its compulsory contributions to the buffer stock, Indonesia purchased SDR 27.7 million under the Fund's buffer stock facility in January 1983 (EBS/82/234).

After increasing by about 50 per cent in 1979/80, other exports grew at an average rate of only 4 per cent in the two pre-shortfall years. In the shortfall year they increased by about 11 per cent. Given the weakness in recent years in world oil markets, the Government has promoted non-oil exports more actively. In particular, in January 1982 a new Export Policy was announced which simplified export procedures significantly and provided improved credit and insurance facilities for exporters.

Other exports are expected to grow at rates of about 14 per cent per year in the two post-shortfall years. The highest growth is expected in aluminum exports because of a new smelter that is scheduled to increase production rapidly over the 1983-85 period. The 28 per cent devaluation of the rupiah in March 1983 should also serve to maintain the competitiveness of this group of exports. A shortfall of SDR 54 million is estimated for these "other" exports.

4. Repurchase

In accordance with paragraph 7 of the compensatory financing decision, the Indonesian authorities are expected to represent that they will make a prompt repurchase in respect of any outstanding part of this purchase if the amount purchased on the basis of partly estimated data (i.e., estimated for the three-month period January-March 1983) exceeds the amount that could have been purchased on the basis of actual data for the entire shortfall year. The amount to be repurchased would be equivalent to the excess purchased by using partly estimated, rather than actual, data for the entire shortfall year.

5. Staff appraisal and proposed decision

The Indonesian authorities are expected to request a purchase of SDR 360 million (equivalent to 50 per cent of quota) under the compensatory financing facility (Executive Board Decision No. 6224-(79/135)), in respect of a shortfall of SDR 553 million in export earnings calculated for the 12 months ended in March 1983. Data for the last three months of the shortfall year are based on estimates, and in accordance with paragraph 7 of the CF decision, the request is expected to include a representation that Indonesia will make a prompt repurchase of the amount, if any, by which the proposed purchase exceeds the amount that could have been purchased on the basis of actual, rather than estimated, data for the entire shortfall year.

Indonesia's external balance turned sharply from a large surplus to a deficit position in 1981/82, and the deficit widened in 1982/83. In 1982/83, the current account registered a deficit of SDR 6.3 billion; the overall deficit was SDR 2.7 billion. The weakened external payment position reflected in part lower exports resulting from deteriorating external demand. Although the Government's active adjustment policy is expected to improve Indonesia's external payments position substantially in 1983/84, the current account deficit is projected to remain high at SDR 6.0 billion, while the overall deficit is projected to decline to SDR 1.6 billion, partly as a result of large external borrowing in the public sector. At the end of March 1983, gross international assets of the monetary system stood at SDR 8 billion (of which official assets were SDR 4 billion), equivalent to 6.8 months of imports, compared with 9.8 months of imports a year earlier. Preliminary data for end of May indicate no change in the March reserve position. The staff considers that Indonesia's balance of payments need justifies the proposed purchase. The response of policies to the recent external deterioration has been adequate; the CF request is expected to include a statement that Indonesia will cooperate with the Fund in efforts to find, where required, appropriate solutions to its balance of payments difficulties.

After increasing on average by 17 per cent per year during the two pre-shortfall years, the value of Indonesia's exports is estimated to have declined by 9 per cent in the shortfall year ended March 1983. The decline in the value of exports reflected lower volumes of oil, logs, and tin, as well as lower unit values of some primary exports: sawn timber, natural rubber, palm oil, and tin; the increase in the unit values of oil and LNG decelerated markedly. Although the volume of some exports (LNG, plywood, sawn timber, coffee, and palm oil) increased, the aggregate index of export volumes, owing largely to weak external demand due to the world recession, declined by 13 per cent, and average export unit values increased only by 3 per cent, in comparison with an increase of 22 per cent per year during the two pre-shortfall years. The value of exports is projected to continue to decline in the first post-shortfall year because of low expected prices for oil and LNG. A moderate recovery in exports is projected to begin in the second post-shortfall year as additional LNG production comes on stream and non-energy exports continue to increase.

The shortfall of SDR 553 million in aggregate earnings is mainly accounted for by shortfalls in timber (SDR 160 million), rubber (SDR 158 million), tin (SDR 44 million), and "other" exports (SDR 54 million); smaller shortfalls are also estimated for coffee (SDR 18 million) and palm oil (SDR 17 million). The shortfall for timber reflects in part the Government's policy to phase out log exports, and to promote domestic processing and exports of timber products. While this policy was not significantly intensified in the shortfall year, exports of processed timber products did not expand as intended because of weak foreign demand during the recession. Shortfalls for other commodities were direct results of the world recession, which caused sharp declines in external demand for Indonesia's primary exports and their international prices.

Earnings from oil and LNG in the shortfall year were about equal to their medium-term trends. Indonesia's oil export prices increased less sharply than the world average during the period of rising world prices, while declining more slowly than the world average during the period of weak demand. Indonesia's official selling prices of oil declined somewhat more slowly than the world average in the shortfall year. It is not clear, however, that by adjusting official selling prices downward more rapidly, Indonesia could have increased its earnings from oil in the shortfall year and thereby reduced the overall export shortfall. In the world oil market situation prevailing during the latter part of the shortfall year, when a price reduction might have produced an abnormally weak short-run response in export volume or a competitive reaction of other oil exporting countries. the value of Indonesia's oil exports could well have been reduced further by a more pronounced cut in the official selling prices. In any case, Indonesia's share in world oil export volume in the shortfall year was higher than the average for the pre-shortfall period average. LNG exports have been constrained entirely by Indonesia's liquification capacity throughout the period.

It is, therefore, the staff's view that Indonesia's shortfall estimated for the year ended March 1983 is largely attributable to factors beyond the control of the member. The staff is also of the opinion that in view of the expected recovery in exports, particularly in the second post-shortfall year, the shortfall is temporary in character.

The staff considers that the expected request will meet all the requirements set forth in the compensatory financing decision. Accordingly, the following draft decision is proposed for adoption by the Executive Board after a duly authenticated request has been received:

1. The Fund has received a request by the Government of Indonesia for a purchase equivalent to SDR 360 million under the Decision on Compensatory Financing of Export Fluctuations (Executive Board Decision No. 6224-(79/135), adopted August 2, 1979).

2. The Fund notes the representations of Indonesia and approves the purchase in accordance with the request.

Indonesia's Petroleum and Natural Gas Industry: Structure and Recent Government Policy

This annex outlines the structure of Indonesia's petroleum and natural gas industry and describes the Government's policy in recent years.

Petroleum and natural gas together are the dominant products of Indonesia, accounting for 16 per cent of its gross national product and 80 per cent of merchandise exports in 1982 (Table 1). Petroleum was by far more important than natural gas, accounting for 83 per cent of combined earnings from the two products in 1982.

Indonesia's proven reserves of recoverable oil are estimated unofficially at 9.8 billion barrels, about 2 per cent of the world's total. The current maximum production capacity is about 1.6 million mbd. The proven recoverable natural gas reserves are estimated at about 27 trillion cubic feet. The current natural gas liquification capacity is estimated at about 400 billion cubic feet per year.

1. Structure of the industry

Indonesia is the ninth largest exporter of crude petroleum and the fifth largest exporter of natural gas in the world. In 1982, its share in world exports of crude petroleum was 4 per cent; its share in world exports of natural gas was 6 per cent. Since the first discovery of oil in the 1800s, many new oil fields have been found; three major ones are Minas (1944), Arjuna (1969), and Handil (1974), which at present account for about two thirds of crude production. Production of crude oil, which had increased steadily to peak at about 1.7 million barrels per day (mbd) in 1977, declined from 1977 to 1981 because of partial depletion of Minas and other older fields and because of uncertainties concerning newly implemented contract procedures that affected exploration from 1975 to 1977 (Table 2). Indonesia's natural gas production increased rapidly in the 1970s as natural gas fields were found in association with the discovery of oil. The utilization of natural gas has increased over time, but further increase has been constrained by the limited pipeline network for domestic consumption and by the lack of liquification facilities for exports.

a. Products

Indonesia exports mostly crude petroleum, with exports of refined products accounting for about 10 per cent of total petroleum exports in volume terms. The types of crude are, on average, of higher quality (35° API vs. 34° API for the marker) 1/ and of lower sulphur content

1/ The API indices refer to the ratings of petroleum by the American Petroleum Institute; a higher index indicates a lighter crude from which more light products can be refined. The crude in largest supply in the world in terms of exports is Saudi Arabian Light 34° API. This crude is used as a benchmark by the Organization of Petroleum Exporting Countries (OPEC).

(0.1 per cent sulphur vs. 1.7 per cent for the marker); the latter attribute makes Indonesia's oil especially desirable in markets, such as the United States West Coast, which maintain strict air pollution standards. Together with its proximity to the two largest buyers (Japan and the United States), the high quality brings a premium of approximately US$1.00 per barrel over the OPEC marker. Refined petroleum exports are mostly in the form of "waxy residue," a by-product of refining for domestic consumption.

Table 1. Indonesia: Oil and Natural Gas Industry

	Share of Oil and Gas in Gross Domestic Product	Share of Oil and Gas in Merchandise Exports
	(In per cent)	
1977	15.8	62.2
1978	14.3	60.6
1979	18.6	63.2
1980	21.4	71.8
1981	20.6	80.1
1982	15.9	79.5

b. Organization of the industry

In Indonesia, petroleum and natural gas resources are owned by the State. The Ministry of Mines and Energy manages all contracts concerning oil and gas with foreign companies, most of which are American, and oversees Pertamina, the state oil and gas company, which is responsible for exploration, production, refining, transportation, and marketing of petroleum and gas. Pertamina also exercises supervisory control over the operations of the foreign oil contractors and their relations with over 200 service companies.

Table 2. Indonesia: Oil Production and Exports

	World	Indonesia Total	Indonesia Per Cent of World
	--- (mbd) -------		(Per cent)
		Production	
1977	61.9	1.69	2.7
1978	62.7	1.63	2.6
1979	65.0	1.59	2.4
1980	62.3	1.58	2.5
1981	58.3	1.60	2.7
1982	55.2	1.34	2.4
		Exports	
1977	31.7	1.46	4.6
1978	30.6	1.40	4.6
1979	32.8	1.26	3.8
1980	29.3	1.18	4.0
1981	25.6	1.18	4.6
1982	21.6	.97	4.4

There are two types of contracts with foreign companies operating in Indonesia: (i) "contract to work" agreements, whereby contractors bear the cost of exploration and development and share in profit and (ii) "production sharing," where management of exploration and production rests with Pertamina and where oil, rather than profits, is shared (Table 3). 1/

The marketing of Indonesia's crude oil and natural gas abroad is conducted both by Pertamina and the foreign contractors. The Indonesian Government's share of oil produced by foreign companies is sold by Pertamina. For oil, Pertamina relies on short-term (one year) contracts, specifying quantities to be delivered and prices to be paid by buyers. In the event of an increase in official government selling prices, a buyer may abrogate the contracts or modify the amount to be supplied. For natural gas, Pertamina relies on long-term contracts in which both quantities and prices are agreed upon. Actual prices to be paid by the buyers are determined on the basis of the agreed formulas which link gas prices to oil prices.

c. Major markets

Up to early 1983, about one third of the domestically produced crude was refined within Indonesia or in neighboring countries under "processing deal" or "cross purchase" agreements, 2/ the rest being exported as crude oil. The practices of cross purchase and processing deal agreements were terminated earlier in 1983 because of the coming on stream of new refinery facilities in Indonesia. About one fourth of refined petroleum is exported, the rest being consumed. The share of refined products in total petroleum exports has been somewhat above 10 per cent in volume terms in recent years.

Because of their geographical proximity, Japan and the United States are the two dominant markets for Indonesia's oil and natural gas. Crude oil is marketed mostly in Japan (50 per cent) and the United States (24 per cent); the rest is shipped to Trinidad and Tobago, Philippines, Bahamas, Australia, Singapore, and other countries. Japan is the only market for natural gas (Table 4).

1/ Major revision of Indonesia's contracting procedures with foreign oil companies occurred with the Oil Law of 1960, which transferred ownership of petroleum resources from the foreign contractor, which owned the oil resources and paid royalties to the Government, to the State; at the same time, "Contract to Work" agreements were instituted. In the mid-1960s, Indonesia introduced a second contract agreement, referred to as "Production Sharing." By 1982 production sharing contracts accounted for roughly half of total crude petroleum production.

2/ Under the "processing deal" agreement, crude oil was shipped to Singapore and the Philippines for processing and was returned to Indonesia as products in exchange for a processing fee. Under the "cross purchase" agreement, crude oil was also shipped to Singapore and the Philippines, but the equivalent in the types of products, needed for domestic consumption was shipped to Indonesia.

Table 3. Indonesia: Oil and Natural Gas Production by Source

	Pertamina	Contracts to Work	Production Sharing Contracts	Total
		Crude Oil (In millions of barrels)		
1977	31	307	277	615
1978	31	289	276	597
1979	30	279	271	580
1980	30	272	275	577
1981	n.a.	n.a.	n.a.	585
1982	28	191	270	488
		Natural Gas (In billions of cubic feet)		
1977	103	70	369	543
1978	115	78	626	820
1979	122	78	798	981
1980	132	77	837	1,046
1981	n.a.	n.a.	n.a.	1,124
1982	184	69	859	1,112

Table 4. Indonesia: Destination of Exports

Calendar Years	Japan	United States	Other	Total
		Crude Oil (In millions of barrels)		
1977	232	179	74	485
1978	208	166	98	472
1979	235	121	55	411
1980	206	114	59	379
1981	193	91	99	383
1982	n.a.	n.a.	n.a.	n.a.
		LNG 1/ (In billions of cubic feet)		
1977	33	--	--	33
1978	185	--	--	185
1979	317	--	--	317
1980	424	--	--	424
1981	440	--	--	440
1982	458	--	--	458

1/ Liquified natural gas.

2. Oil and natural gas policy

Because of its large population and the need to finance its development programs, Indonesia's policy has generally been to promote the maximum growth of production and exports of petroleum and natural gas. Flexible negotiations and contract procedures have been maintained to attract foreign oil companies. Pricing policies have reflected the Government's intention to favor moderation in the fluctuation of prices. Indonesia has been a member of the OPEC since 1962.

a. Exploration and production policy

A major change in policy concerning exploration and production took place in 1976, when the Indonesian authorities implemented a revision in basic terms of "production sharing" contracts from an oil split of 65/35 in favor of the Government to 85/15. Coincidentally, the United States Internal Revenue Service passed a ruling to disallow the crediting of taxes paid to the Indonesian Government against U.S. corporate taxes, which affected most foreign contractors operating in Indonesia. These two events discouraged exploration of oil during 1975-77, and, in conjunction with a drawing down of reserves in older fields, resulted in a downturn of production after 1977. By 1977, however, the Indonesian authorities had introduced an exploration incentive package covering new oil fields, and in 1978, the U.S. IRS overturned its earlier tax ruling for modified contracts. These improvements and further exploration incentives introduced by the Indonesian authorities resulted in a recovery in exploration after 1977 and in production after 1980, led overwhelmingly by "production sharing" contractors.

b. Marketing and pricing policy

The thrust of Indonesia's external marketing policy has been to pursue long-term stable relationships with its buyers. This policy has been supported by the restraining of excessive fluctuations in export prices of oil and gas. Domestically, Indonesia has traditionally maintained relatively low prices of oil and natural gas, which resulted in rapid growth of domestic consumption, but this situation was redressed in 1982 and 1983, when domestic prices of oil were increased sharply.

Indonesia's moderate export pricing policy is reflected in the movement of its prices during the period when world market prices strengthened: from the fourth quarter of 1978 to the first quarter of 1981, Indonesia's official selling prices of oil increased on average by 162 per cent, compared with 173 per cent for the world average. During 1981, Indonesia priced its crude on the basis of a US$34 per barrel Saudi marker, while many other exporting countries pegged their prices to a US$36 per barrel marker. Thus, when OPEC unified its prices around a US$34 marker after the Abu Dhabi meeting in December 1981, Indonesia did not have to reduce its prices to maintain the differential with the average price. Moderated price increases in 1979-80 were followed by relatively slow price decreases during 1981-82, the period of weak world market. From the first quarter of 1981 to the fourth quarter of 1982, Indonesian official prices declined by 1 per cent, in comparison with declines of 6 per cent for the world average. Indonesia reduced its official prices by US$5.09 per barrel to US$29.70 per barrel effective February 1983 after an OPEC agreement on prices and production quotas (Table 5).

Domestic prices of oil in Indonesia were sharply lower than international prices until January 1982, when the Government allowed a 50 per cent increase in price to an average of Rp 108 per liter, equivalent to about 60 per cent of international price; this increase was followed by another 50 per cent increase in January 1983.

With regard to pricing practices for liquified natural gas, it has been customary for all major exporters of LNG, including industrialized exporters, to tie the price of LNG to that of oil, for price competitiveness vis-a-vis oil. Indonesia's pricing policy has followed this practice and, in addition, included a small weighting factor in its formula linking LNG price to movements in the yen exchange rate; therefore, price as indicated by export unit value index, has not moved precisely in line with that of oil. There has been no decline in Indonesia's LNG export volume, and its only constraint on earnings from LNG has been the capacity constraint to ship it in liquified form.

Table 5. Crude Petroleum Prices

(US$ per barrel)

		Export Unit Value		Official Selling Price		
		World	Indonesia	World	Saudi Arabia Marker	Indonesia
1977	Q1	12.79	13.41	12.67	12.09	13.58
	Q2	12.80	13.45	12.70	12.09	13.58
	Q3	12.97	13.50	12.98	12.70	13.54
	Q4	12.90	13.50	12.97	12.70	13.54
1978	Q1	12.78	13.50	12.95	12.70	13.54
	Q2	12.72	13.51	12.90	12.70	13.54
	Q3	12.95	13.48	12.89	12.70	13.54
	Q4	13.08	13.54	12.89	12.70	13.54
1979	Q1	14.25	13.99	13.86	13.34	14.03
	Q2	17.50	16.67	17.05	15.70	16.97
	Q3	20.98	21.22	20.61	18.00	21.44
	Q4	24.01	23.31	24.05	22.00	23.35
1980	Q1	29.51	29.85	28.98	26.00	29.32
	Q2	30.67	31.04	30.72	28.00	31.21
	Q3	31.97	32.00	31.95	29.33	31.98
	Q4	32.80	31.83	32.80	31.33	31.98
1981	Q1	35.31	35.36	35.18	32.00	35.46
	Q2	35.03	35.12	34.68	32.00	35.46
	Q3	33.00	35.17	34.11	32.00	35.44
	Q4	33.53	35.03	34.33	34.00	35.39
1982	Q1	32.49	35.16	33.71	34.00	35.34
	Q2	31.39	35.54	33.80	34.00	35.34
	Q3	32.23	35.33	32.95	34.00	35.45
	Q4	32.86	34.74	32.94	34.00	35.01
1983	Q1	31.40	32.41	30.78	31.00	33.09 1/

1/ Official selling price lowered effective February 23, 1983 to US$29.70 per barrel.

Fund Relations with Indonesia
(As of June 30, 1983)

Date of membership:	February 21, 1967
Quota:	
Present:	SDR 720 million
Proposed:	SDR 1,009.7 million
Status:	Article XIV
Fund holdings of Indonesian rupiahs:	SDR 785.1 million, or 109.0 per cent of quota, including SDR 65.1 million, or 9.0 per cent of quota, in respect of the buffer stock financing facility.
Holdings of SDRs:	SDR 54.71 million, or 22.9 per cent of net cumulative allocation of SDR 238.9 million.
Gold distribution:	222,515.983 fine ounces in four distributions.
Direct distribution of profits from gold sales:	US$41.3 million
Exchange rate system:	On November 15, 1978, the peg of the Indonesian rupiah to the U.S. dollar was severed and Indonesia instituted a managed float under which a basket of trading partner currencies is used as one of the indicators for the determination of the exchange rate. The initial rate established for the rupiah on that date was Rp 625 per US$1. The U.S. dollar is the intervention currency. Effective March 30, 1983, the rupiah was devalued by 27.6 per cent. At the same time, Bank Indonesia announced that it would continue to follow a policy of a managed float, but would take into account a somewhat broader set of currencies than was the case prior to this devaluation. The rate established for the rupiah as of March 31, 1983 was Rp 970 per US$1; through June 1983, the rate has varied narrowly around this value.
Exchange practices:	Indonesia maintains three multiple currency practices arising from collection procedures for export taxes. Temporary approval for retention of these multiple currency practices until April 1, 1984 was granted at EBM/83/6, January 7, 1983.

Technical assistance:	In the past the Fund has provided Indonesia with considerable technical assistance in various areas.
Last Article IV consultation:	SM/82/244 was discussed by the Executive Board on January 7, 1983 (EBM/83/6).