

DOCUMENT OF INTERNATIONAL MONETARY FUND
AND NOT FOR PUBLIC USE

**FOR
AGENDA**

EBS/89/89

CONFIDENTIAL

May 5, 1989

To: Members of the Executive Board

From: The Secretary

Subject: Algeria - Use of Fund Resources - Compensatory and Contingency
Financing Facility - Request for Compensatory Financing of
Fluctuations in Exports and in the Cost of Cereal Imports

Attached for consideration by the Executive Directors is a paper on a request expected to be received from Algeria for a purchase equivalent to SDR 315.2 million under the decision on the compensatory and contingency financing facility. A draft decision appears on page 17.

This is the first case of a request for a drawing under the compensatory element of the compensatory and contingency financing facility to be brought to the agenda for discussion since the issuance of the paper proposing guidelines for updating projections (SM/88/277, 12/20/88), which, as agreed, will be placed on the agenda for consideration at the same time.

This subject, together with the staff report for the 1989 Article IV consultation with Algeria and its request for a stand-by arrangement (EBS/89/88, 5/4/89), is tentatively scheduled for Wednesday, May 31, 1989.

Mr. Pownall (ext. 7727) or Mr. Babin (ext. 7412) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

Att: (3)

INTERNATIONAL MONETARY FUND

ALGERIA

Use of Fund Resources--Compensatory and Contingency Financing Facility--
Request for Compensatory Financing of Fluctuations in Exports
and in the Cost of Cereal Imports

Prepared by the Research and African Departments

(In consultation with the Exchange and Trade Relations,
Legal, and Treasurer's Departments)

Approved by Jacob A. Frenkel and Mamoudou Touré

May 4, 1989

The Managing Director has been informed that the authorities of Algeria will shortly request a purchase of SDR 315.2 million (equivalent to 50.6 percent of quota) under the decision on the compensatory and contingency financing facility (Decision No. 8955-(88/126), adopted August 23, 1988). The request is being made in respect of a shortfall of SDR 970.3 million in merchandise exports and an excess in cereal import costs of SDR 66.0 million in calendar year 1988. This is Algeria's first request for a compensatory financing purchase. The proposed request is expected to be considered by the Executive Board concurrently with the request for a first credit tranche stand-by arrangement (EBS/89/88, 5/4/89). If both requests are approved, the Fund's holdings of the member's currency will rise from 100 percent of quota to 175.6 percent of quota.

This paper, which is being circulated in advance of the formal request from Algeria, includes four sections and two annexes. The sections deal with: (1) balance of payments position and cooperation with the Fund; (2) estimation of the export shortfall and excess in cereal import costs; (3) causes of the export shortfall and excess in cereal import costs and prospects; and (4) staff appraisal and proposed decision. Annex I analyzes the export shortfall and excess in cereal import costs by reference to developments and prospects for major commodities. Annex II summarizes Algeria's relations with the Fund.

1. Balance of payments position and cooperation with the Fund

a. Balance of payments position

Algeria's balance of payments position deteriorated in 1988. Exports declined by 17 percent in SDR terms, reflecting mainly a reduction in the volumes and unit values of crude oil and condensate exports (Table 1). Cereal imports nearly doubled because of a drought but total imports were contained to less than the previous year's level through trade and

Table 1. Algeria: Balance of Payments, 1985-90

(In millions of SDRs) ^{1/}

	1985	1986	1987	1988	Projected	
					1989	1990
A. Current account balance	999	-1,900	109	-574	-380	297
Trade balance	4,159	158	1,866	1,182	1,500	2,019
Exports, f.o.b.	12,837	6,874	6,982	5,827	6,762	7,671
Hydrocarbons	12,632	6,663	6,810	5,523	6,236	7,073
Other	205	211	172	304	526	598
Imports, f.o.b. ^{2/}	-8,678	-6,716	-5,116	-4,645	-5,261	-5,652
Nonfactor services, net	-2,157	-1,451	-930	-710	-777	-812
Credits	612	539	500	394	462	526
Debits	-2,769	-1,990	-1,430	-1,104	-1,239	-1,338
Factor income, net	-1,326	-1,218	-1,186	-1,367	-1,525	-1,424
Credits	187	146	85	51	51	65
Debits	-1,514	-1,364	-1,271	-1,418	-1,576	-1,489
Of which:						
Interest payments	-1,514	-1,364	-1,269	-1,418	-1,569	-1,481
Transfers, net	323	610	359	321	422	515
Credits	472	740	445	376	481	576
Of which:						
Workers remittances	259	264	336	253	348	438
Debits	-148	-130	-85	-55	-59	-62
B. Capital account	6	637	-323	9	65	-33
Direct investment, net	-86	-55	-84	-22	--	--
Official capital, net	50	365	100	75	65	-33
Drawings	3,251	3,372	2,911	3,459	3,414	2,883
Amortization	-3,201	-3,008	-2,811	-3,384	-3,349	-2,916
Monetary capital, net	-94	171	236	-17	--	--
Operations pending settlement ^{3/}	141	150	-584	-27	--	--
Errors and omissions	5	5	9	--	--	--
C. Overall balance	1,006	-1,264	-214	-565	-315	264
Valuation changes	165	51	82	78	13	-10
Change in net reserves	1,170	-1,213	-132	-487	-302	254
Gross reserves	1,335	-1,209	-201	-487	169	254
Use of Fund resources	--	--	--	--	-471	--
Other liabilities	-164	-4	69	--	--	--
Memorandum items:						
Gross reserves (excluding gold)	2,566	1,357	1,156	669	838	1,100
In months of imports ^{4/}	2.7	1.9	2.1	1.4	1.5	1.9
Debt service/exports (in percent)	35.1	59.0	54.5	77.2	61.8	53.7
Debt stock/exports (in percent)	100.0	200.1	203.9	262.8	232.2	198.7

Sources. Data received from the Algerian authorities; and staff estimates.

^{1/} Totals may not add due to rounding.

^{2/} Includes only imports paid for through the official foreign exchange market.

^{3/} Relates to delays in payments for gas exports resulting from price disputes.

^{4/} Goods and nonfactor services.

payments controls. Interest payments rose significantly. As a result of these developments, the current account balance shifted from a small surplus in 1987 to a deficit of SDR 574 million in 1988. As the capital account was in virtual balance, the current account deficit was financed mainly by a drawdown of foreign exchange reserves, together with the utilization at year-end of Algeria's reserve tranche in the Fund (SDR 72 million) and SDR holdings (SDR 144 million). At the end of 1988, gross reserves (excluding gold) amounted to 1.4 months of imports of goods and nonfactor services, compared with 2.1 months at the end of the preceding year. Reflecting both the decline in exports and the rise in service payments, the ratio of debt service payments to exports of goods and nonfactor services rose from 55 percent in 1987 to 77 percent in 1988.

The balance of payments is expected to improve during the period 1989-90. The projected rise in export earnings would allow for an increase in imports together with a reduction in the current account deficit in 1989 and the reattainment of a current account surplus in 1990. The capital account is projected to be in virtual balance in both years as continued high amortization payments during these years would be matched by new borrowing. As a result, the ratio of gross reserves to imports is projected to increase only marginally. With the improved export performance, the debt service ratio is projected to decline to 62 percent in 1989 and to 54 percent in 1990.

b. Cooperation with the Fund

The Government of Algeria has a record of good relations with the Fund. A policy dialogue has been regularly maintained through Article IV consultations and, in recent years, Algeria has received Fund technical assistance missions in the fields of central banking, public finance, and exchange and trade. Algeria has not previously used Fund resources. The Algerian authorities have adopted a financial and economic program, in support of which they have requested a first credit tranche stand-by arrangement (EBS/89/88, 5/4/89).

Algeria continues to maintain a restrictive trade and exchange system. Recently the authorities have introduced foreign exchange budgets at the level of each enterprise, which no longer involve the detailed specification of the end-use of foreign exchange resources, thus providing enterprises greater flexibility. Moreover, in foreign exchange allocation the private sector is now treated on a more equal footing with the public sector. Algeria's exchange restrictions, with the exception of that arising from the new foreign exchange budgets, were in effect when Algeria became a member of the Fund in 1963 and are maintained in accordance with the transitional arrangements under Article XIV. The exchange restriction arising from the new foreign exchange budget is subject to Fund approval under Article VIII and approval by the Executive Board is being proposed in (EBS/89/88, 5/4/89).

The request for a purchase under the compensatory element of the compensatory and contingency financing facility is expected to include a

statement by the authorities that Algeria will cooperate with the Fund in an effort to find, where required, appropriate solutions for its balance of payments difficulties. The staff considers that the financial and economic program to be supported by the proposed stand-by arrangement and Algeria's record of cooperation with the Fund meet the requirement of cooperation associated with the proposed compensatory purchase.

2. Estimation of export shortfall and cereal excess

The calculations supporting the proposed compensatory purchase by Algeria are based on a shortfall in merchandise exports and an excess in cereal import costs for calendar year 1988, the latest period for which actual data are available (Table 2). After declining by 17 percent in the shortfall year, total export earnings in SDRs are projected to increase by 16 percent in the first post-shortfall year and by 13 percent in the second post-shortfall year (Table 3). On the basis of these movements, the export shortfall for calendar year 1988 is calculated at SDR 970.3 million, equivalent to 155.7 percent of quota. After declining by some 24 percent in 1987, the value of cereal imports virtually doubled in 1988. A further increase of 15 percent is projected for 1989, followed by a decline of 10 percent in 1990. On the basis of these movements, the excess in cereal import costs is calculated at SDR 66.0 million, equivalent to 10.6 percent of quota. The sum of the export shortfall and the cereal excess, at SDR 1,036.3 million, is more than three times the proposed purchase of SDR 315.2 million.

3. Causes of the export shortfall and cereal import excess, and prospects

The export shortfall calculated for calendar 1988 mainly reflects shortfalls in three commodities: condensates (SDR 353 million), crude petroleum (SDR 196 million), and liquefied natural gas (LNG) (SDR 159 million). Smaller shortfalls were also recorded for all other energy products and for non-energy exports. The shortfalls in energy exports reflect shortfalls in the unit values of all energy products as well as shortfalls in the volumes of condensates, crude petroleum and LNG exports (Table 4). The excess in cereal import costs of SDR 66.0 million reflects excesses in the volumes of all cereal imports (hard and soft wheat, maize, barley, and rice) and excesses in the unit values of all such imports except hard wheat. The following sections provide an overview of developments affecting energy exports, non-energy exports, and cereal import costs. A detailed account of developments relating to specific commodities is contained in Annex I.

a. Export shortfall

(1) Petroleum exports

Petroleum exports, consisting of crude petroleum, condensates, refined petroleum products, and liquid petroleum gas (LPG), accounted for 68 percent of total exports in 1988, the shortfall year. The decline in

Table 2. Algeria: Estimation of Amount of Compensation, 1986-90

(In millions of SDRs)

	Years Ending December				
	1986	1987	1988	Projected 1/ 1989 1990	
1. Merchandise exports	6,874.0	6,982.0	5,827.0	6,762.0	7,671.0
2. Commercial cereal imports	349.7	266.7	521.3	599.6	539.3
3. Sum of export shortfall and cereal excess			<u>1,036.3</u>		
Export shortfall			970.3		
Excess in cereal import costs			66.0		
4. Proposed purchase 2/ Export shortfall component			<u>315.2</u> 249.2		
Cereal excess component			66.0		

Sources: Data provided by the Algerian authorities; and Fund staff estimates.

1/ Based on judgmental forecasts of earnings presented in Tables 3, 4, and 5. The constraint that exports in the post-shortfall period not exceed 20 percent of their average level in the preshortfall period is not binding in this case.

2/ The export shortfall component amounts to 40 percent of quota and the cereal component amounts to 10.6 percent of quota.

Table 3. Algeria: Export Earnings and Shortfalls By Major Commodities, 1984-90

	Years Ending December							Shortfall Year = 1988	
	1984	1985	1986	1987	1988	Projected		Geometric	Arithmetic
						1989	1990		
(In millions of SDRs)									
Total exports	12,480	12,837	6,874	6,982	5,827	6,762	7,671	970.3	996.6
Total hydrocarbons	12,293	12,632	6,663	6,810	5,523	6,236	7,073	914.2	937.9
Crude petroleum	2,799	3,172	1,203	1,329	1,004	1,221	1,270	196.0	201.3
Condensates	3,221	3,014	1,433	1,842	1,298	1,803	1,987	353.2	374.6
Refined petroleum	2,741	2,451	1,440	1,527	1,334	1,189	1,429	44.8	49.7
LPG	369	455	298	342	303	339	325	17.8	18.3
LNG	1,948	1,851	990	790	848	1,132	1,381	159.2	180.1
Natural gas	951	1,282	734	659	619	552	682	27.3	30.3
Other	264	408	564	322	117	--	--	--	--
Non-energy exports	186	205	211	172	304	526	598	17.7	57.7
(Percentage change)									
Total exports	5	3	-46	2	-17	16	13		
Total hydrocarbons	2	3	-47	-2	-19	13	13		
Crude petroleum	-9	13	-62	10	-24	22	4		
Condensates	-3	-6	-52	29	-30	39	10		
Refined petroleum	-8	-11	-41	6	-13	-11	20		
LPG	131	23	-35	15	-11	12	-4		
LNG	-9	-5	-47	-20	7	34	22		
Natural gas	203	35	-43	-10	-6	-11	24		
Other	...	55	38	-43	-64	--	--		
Non-energy exports	...	10	3	-19	77	72	14		

Sources: Data provided by the Algerian authorities; and Fund staff estimates.

Table 4. Algeria: Export Earnings and Shortfalls by Major Commodities
and by Value, Volume and Unit Value, 1984-90

(1988=100; In terms of SDRs)

	Value Share in Total Exports in 1988 (In percent)	Years Ending December							Shortfall in Percent of Level in Shortfall Year = 1988
		1984	1985	1986	1987	1988	Projected		
							1989	1990	
Value	<u>92.8</u>	<u>223</u>	<u>226</u>	<u>113</u>	<u>120</u>	<u>100</u>	<u>116</u>	<u>131</u>	<u>15.6</u>
Crude petroleum	17.2	279	316	120	132	100	122	126	19.5
Condensates	22.3	248	232	110	142	100	139	153	27.1
Refined petroleum	22.9	205	184	108	114	100	89	107	3.2
LPG	5.2	122	150	98	113	100	112	107	5.8
LNG	14.6	230	218	117	93	100	134	163	18.9
Natural gas	10.6	154	207	119	106	100	89	110	4.3
Volume		<u>92</u>	<u>96</u>	<u>98</u>	<u>102</u>	<u>100</u>	<u>104</u>	<u>113</u>	<u>3.3</u>
Crude petroleum		122	139	120	110	100	110	112	10.2
Condensates		96	91	98	112	100	118	128	10.6
Refined petroleum		99	94	106	92	100	81	93	-6.0
LPG		46	59	78	93	100	99	96	-7.2
LNG		78	81	79	93	100	122	139	4.5
Natural gas		62	81	77	105	100	94	102	-5.0
Unit Value		<u>242</u>	<u>235</u>	<u>115</u>	<u>118</u>	<u>100</u>	<u>112</u>	<u>116</u>	<u>12.0</u>
Crude petroleum		229	227	100	120	100	111	113	8.5
Condensates		258	255	112	127	100	118	120	15.0
Refined petroleum		207	196	102	124	100	110	115	9.9
LPG		265	254	126	122	100	113	111	14.0
LNG		295	269	148	100	100	110	117	13.8
Natural gas		248	256	155	101	100	95	108	9.9

Sources: Data provided by the Algerian authorities; and Fund staff estimates.

earnings from petroleum exports, from an average level of SDR 4,695 million in the two preshortfall years (1986 and 1987) to SDR 3,939 million in the shortfall year, was due to declines in the export unit values of all petroleum products and to a reduction in the volumes of crude petroleum and condensates. In the case of crude petroleum, the export unit value declined in the shortfall year by 10 percent relative to the average unit value in the two preshortfall years, while volume fell by 15 percent. The export unit value of condensates declined by 16 percent and volume fell by 5 percent over the same period. The movements in Algeria's crude petroleum prices and other energy prices closely follow those of world spot market prices for crude oil (Chart 1).

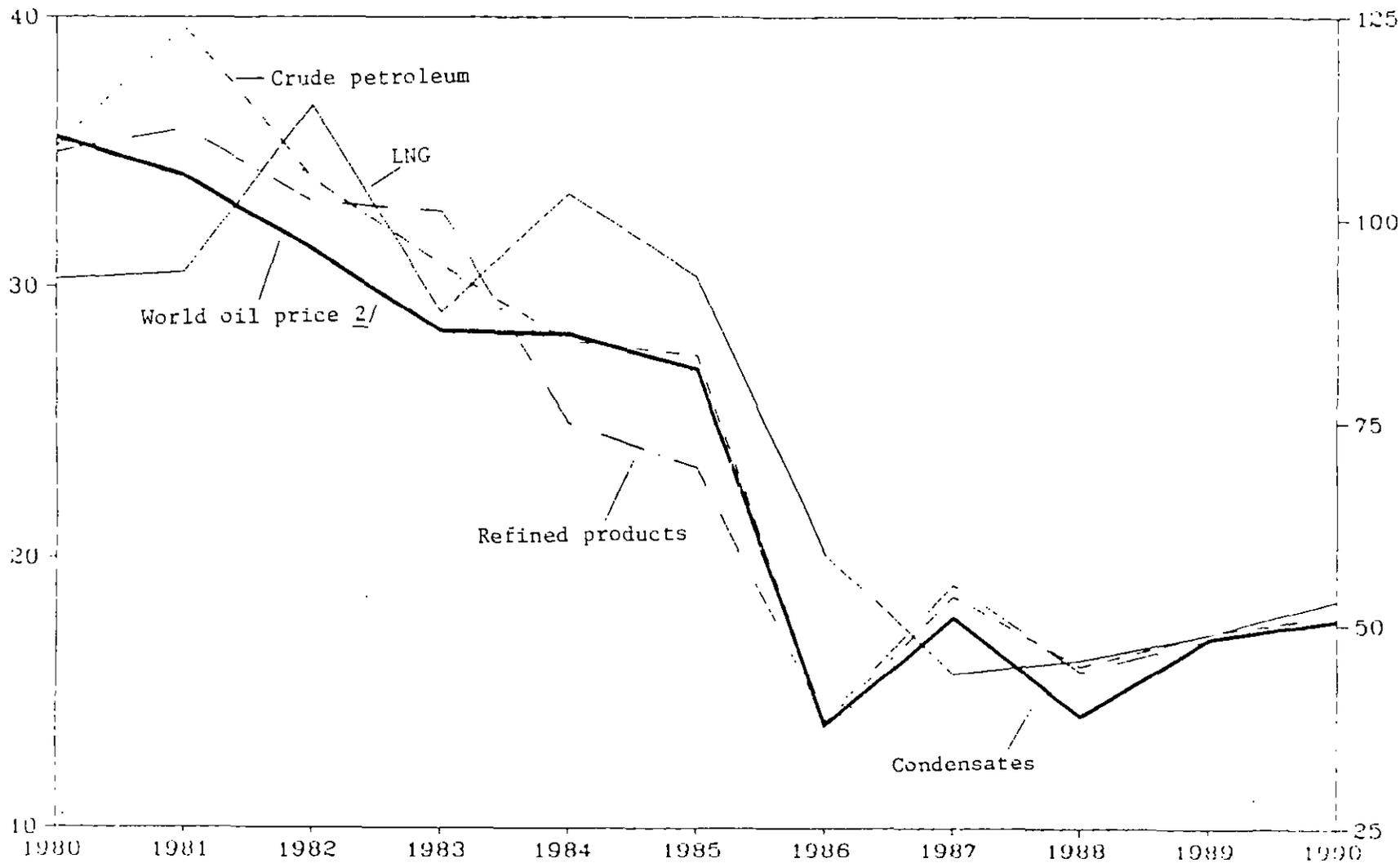
Algeria is a member of the Organization of Petroleum Exporting Countries (OPEC). ^{1/} Developments in the world oil market that led to the weakening of oil prices in 1988 have been described in detail in Supplementary Note 8 of the latest World Economic Outlook report (April 1989). These developments are reviewed in Annex I. However, it may be useful to summarize briefly the main features of recent developments as they provide important background to an understanding of the emergence of Algeria's export shortfall. Over the three-year period ended in 1988 (the shortfall year), world consumption of petroleum increased at a relatively steady rate of about 2 1/2 percent per annum (Table 5). Since the short-run price elasticity of demand for oil is generally estimated to be quite low, changes in the price of oil in the near term have mainly reflected shifts in the supply of oil. Although the share of OPEC members in total world production has declined to about one third in recent years, movements in world oil supplies during the period over which the shortfall is calculated were the result mainly of changes in petroleum production by the members of OPEC.

After falling sharply in 1986, crude oil prices ^{2/} recovered in 1987 to an average of \$17.79 per barrel, largely as a result of a moderate decline in OPEC output following the sharp increase in the previous year. Crude oil prices weakened again in 1988, particularly in the third quarter, when spot market prices averaged \$13.59 per barrel, as several OPEC members experienced difficulties in adhering to their production quotas. In late November 1988, the members of OPEC agreed to abide by newly established production quotas within an overall production ceiling of 18.5 million barrels a day (mbd) for the first half of 1989 and reaffirmed their intention to stabilize prices at the \$18 a barrel reference level. Following this agreement, crude oil prices strengthened considerably, rising from an average \$11.77 a barrel in November 1988 to \$17.45 a barrel in March 1989; prices increased further in April to \$18.85

^{1/} The members of OPEC are: Algeria, Ecuador, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Socialist People's Libyan Arab Jamahiriya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

^{2/} The simple average of spot market prices for U.K. Brent, Dubai, and Alaskan North Slope crude petroleum, representing light, medium, and heavy crude oils, respectively.

CHART 1. World Oil Prices and Algeria's Export Unit Values 1/
of Selected Hydrocarbon Products, 1980-90



Sources: Data provided by the Algerian authorities; and Fund staff estimates.
 1. In U.S. dollars per barrel; LNG, in U.S. dollars per cubic meter, right hand scale.
 2. Simple average of spot prices for U.K. Brent, Dubai and Alaska North Slope crude oil.



Table 5. Movements in Hydrocarbon Production
and World Oil Consumption, 1984-88

(Annual percentage change)

	1984	1985	1986	1987	1988
Crude oil production					
World	1.7	-0.6	5.6	-0.1	3.9
OPEC	-3.5	-4.2	16.8	-2.8	11.4
OPEC (excluding Algeria)	-3.9	-4.2	18.0	-3.1	11.8
Algeria	6.6	3.4	1.3	-6.0	-0.7
World oil consumption	1.5	-0.5	2.7	2.5	2.6
Algerian hydrocarbon production					
Crude and condensates <u>1/</u>	5.0	0.9	2.5	-0.1	-3.5
Condensates	1.6	-4.6	5.5	13.7	-8.9
Natural gas production <u>2/</u>	2.2	10.4	-0.1	14.2	2.9
Total <u>3/</u>	4.4	2.7	2.1	2.5	-2.2
Memorandum items:					
Capacity utilization					
(in percent) <u>4/</u>	87.8	90.8	92.0	86.5	85.8
Crude oil output (mbd)	0.703	0.726	0.736	0.692	0.687
Algeria's OPEC quota (mbd) <u>5/</u>	0.715	0.663	... <u>6/</u>	0.651	0.667

Sources: Data provided by the Algerian authorities, various oil industry publications, and Fund staff estimates.

1/ Although Algerian condensates are a by-product of gas production, they are a close substitute for lighter crude and are classified as a petroleum product.

2/ Volume of gas transported.

3/ Composite index of crude, condensates and natural gas, based on energy equivalents.

4/ On the basis of about 800,000 mbd capacity.

5/ Weighted monthly average.

6/ OPEC quotas were de facto not in effect from the latter part of 1985 to September 1986.

partly as a result of supply interruptions in some areas. The current situation in the oil market remains uncertain, but average oil prices in 1989 now appear likely to be somewhat higher than earlier forecasts. Prices are assumed to remain constant in real terms in 1990, implying an increase in nominal U.S. dollar terms of about 4 percent.

Algeria accounts for about 3-4 percent of OPEC crude oil output and about 1 percent of total world output. 1/ During the period 1986-88, Algerian crude oil output was more stable than total output of the other members of OPEC (see Table 5). Following an increase of about 1 percent in 1986, Algeria's crude oil output fell by about 6 percent in 1987 and by about 1 percent in 1988. Algeria's total output of petroleum, including condensates, was considerably more stable, remaining virtually unchanged in 1987 and declining by 3.5 percent in 1988. 2/ By contrast, OPEC crude oil output (excluding Algeria) rose by about 18 percent in 1986, fell by about 3 percent in 1987, and rose by about 11 percent in 1988. Since Algeria's share in total OPEC output and the fluctuations in its crude oil output were both relatively small during the period 1986-88, Algeria did not contribute significantly to the changes in crude oil supplies by OPEC as a group, and hence to the fluctuations in crude oil prices, during the three years ending in the shortfall year. Furthermore, Algerian crude oil output declined in 1988 while that of other OPEC members rose markedly. Thus, Algeria does not appear to have played any role in the breakdown of the OPEC production-sharing arrangement in the shortfall year.

Algeria has for several years been producing crude oil at near its short-run capacity of about 800 thousand barrels per day, recording one of the highest rates of capacity utilization of the members of OPEC. At this level of capacity utilization, Algeria's crude oil output has been on average slightly higher than its OPEC quota. The decline in crude petroleum output and in the rate of capacity utilization in 1987 and 1988 reflects, in part, the reduction of investment in earlier years owing to financial constraints. A law passed in 1986 permitted foreign equity participation in exploration. Subsequently, investment in the petroleum sector has risen and the number of wells drilled per year has increased. However, because the fruition of these investments will involve a substantial lag and the need to interrupt production in certain wells to

1/ The proportion of crude oil and petroleum products in Algeria's exports has declined sharply in recent years, from about 93 percent in 1975 to 45 percent in 1988, as a result of Algeria's diversification policy and the exploitation of the country's relatively larger resources of gas and condensates. At current production levels, Algeria possesses 175 years of reserves of condensates and 32 years of reserves of natural gas, compared with 23 years of reserves of crude oil. The export shortfalls in 1988 for crude oil and its derivative products amounted to about one quarter of the total export shortfall.

2/ Algerian condensates, although a close substitute for lighter crudes, are a by-product of gas production and are not included in OPEC production-sharing agreements.

maintain and rehabilitate equipment, Algeria's crude oil production is expected to continue to decline moderately in 1989. With no further stoppages anticipated, an increase in production of about 5 percent is projected for 1990.

In addition to supply limitations, exports of crude petroleum have also been affected by changes in the composition of exports in line with Algeria's export diversification program. Although crude oil exports declined in the shortfall year, this was largely offset by an increase in the volume of refined petroleum products exports. Exports of refined products are expected to decline in 1989 because of scheduled maintenance works in refineries. A recovery is forecast in 1990 as the refineries would resume operating near their total input capacity of 21.5 million tons per year.

Condensates have assumed greater importance in the energy sector in recent years. The volume of exports of condensates increased rapidly following the development of the Hassi R'Mel gas field in 1982 and the d'Alrar field in 1984, and Algeria is now the largest exporter of condensates in the world. The decline in the export volume of condensates in 1988 resulted partly from production interruptions during maintenance works at Hassi R'Mel. The rising trend in the export volume of condensates is projected to resume over the two post-shortfall years, as a result of investments undertaken since 1986. Additional production is expected to come on stream from two gas fields in the near term, Rhourde Nouss in 1989 and Rhourde Adra in 1990. The export volume of LPG, which has steadily risen through 1988, is expected to decline moderately in 1989-90, in view of higher domestic consumption. In the two post-shortfall years, the unit values of Algeria's petroleum exports are expected to follow closely world crude spot prices.

(2) Gas exports

Algeria's exports of natural gas and liquefied natural gas (LNG) accounted for about one fourth of total exports in 1988. Reflecting the strength of investment in this sector, the usable production of natural gas (volume transported) rose steadily in the three-year period ended in 1988, and is expected to increase by an average of 14 percent per annum in the two post-shortfall years. The export volume of LNG has also risen steadily and is projected to continue to increase in line with the expansion of world demand. The export volume of natural gas, which is sold by pipeline to Italy, reached a peak in 1987; in view of excess pipeline capacity, *fluctuations in the volume of exports have been determined mainly by movements in demand in that country.* In the shortfall year, the volume of natural gas and LNG exports was 12 percent higher than the average level in the two preshortfall years. The declines in earnings from LNG and natural gas in the shortfall year were entirely due to reductions in export unit values. Relative to the levels recorded during the two preshortfall years, export unit values in the shortfall year declined by 18 percent for LNG and 20 percent for natural gas. As indicated in Chart 1, movements in the export unit values of LNG tend to

be correlated over the long term with international prices for petroleum owing to the partial substitutability of these energy sources. In Algeria, gas products are generally sold under long-term contracts with prices in many cases linked to recent prices of competing fuels.

(3) Non-energy exports

Non-energy exports have traditionally accounted for a modest share of total exports. These exports are composed mainly of industrial products, including metal manufactures and recently, petrochemicals. Agricultural exports, consisting mainly of wine, fruits, and vegetables, have a small share. From a low base, non-energy exports rose by 77 percent in 1988 and are projected to rise by a further 72 percent in 1989, on the strength of recent investments in industrial production, the real depreciation of the effective exchange rate, and certain fiscal incentives. These exports are projected to increase by 14 percent in 1990.

b. Cereal import costs

Algeria's grain production satisfies only about one fifth of domestic consumption requirements. The remainder has traditionally been covered by imports. In 1988, a serious drought during the growing season reduced both the area planted to cereals and yields. Moreover, locust infestation caused further damage. As a result, domestic grain output was reduced by half, at a time when import prices increased on average by 32 percent; as a consequence, total cereal import costs nearly doubled to SDR 521 million. The calculated excess in Algeria's cereal imports in the shortfall year of 1988 (SDR 66.0 million) is accounted for by excesses in import costs of wheat (SDR 37.3 million), barley (SDR 18.5 million), maize (SDR 8.2 million), and rice (SDR 2.0 million) (Table 6).

In comparison with the average of the two preshortfall years, import volumes in 1988 increased by 45 percent for hard wheat, 42 percent for soft wheat, 29 percent for maize, and 45 percent for rice. The volume of barley imports in 1988 was 39 percent higher than in 1987; no imports were made in 1986 (Table 7). Compared with the average of the two preshortfall years, import unit values in 1988 declined by 4 percent for hard wheat but increased by 22 percent for soft wheat, 9 percent for maize, and 33 percent for rice; the import price for barley rose by 39 percent over the 1987 level.

Algeria's cereal production in 1989 is expected to recover to 800 thousand tons, approximately equal to the average for 1986-87, and to remain at that level in 1990. However, in view of rising consumption, domestic production would satisfy only about 13 percent of total requirements. In 1989-90, the authorities intend to import barley and maize at levels higher than in 1988, because of the slow recovery of pasture lands damaged by the drought and the replacement of animal herds which were drastically reduced by drought-related acceleration of

Table 6. Algeria: Cereal Imports and Excesses
By Major Commodities, 1986-90

	<u>Years Ending December</u>					Arithmetic Excess
	1986	1987	1988	<u>Projected</u>		
				1989	1990	
	(In millions of SDRs)					
Total cereal imports	349.7	266.7	521.3	599.6	539.3	66.0
Wheat (hard)	162.8	125.9	204.3	224.7	197.9	21.2
Wheat (soft)	83.1	67.6	132.6	155.5	143.9	16.1
Barley	--	8.4	63.6	81.1	72.3	18.5
Maize	97.7	62.7	112.9	131.3	118.9	8.2
Rice	6.1	2.1	7.9	7.0	6.3	2.0
	(Percentage change)					
Total cereal imports	-22.9	-23.7	95.5	15.0	-10.1	
Wheat (hard)	-23.4	-22.7	62.3	10.0	-11.9	
Wheat (soft)	-44.0	-18.7	96.2	17.3	-7.5	
Barley	--	--	657.1	27.5	-10.9	
Maize	36.5	-35.8	80.1	16.3	-9.4	
Rice	-30.7	-65.6	276.2	-11.4	-10.0	

Sources: Data provided by the Algerian authorities; and Fund staff estimates.

Table 7. Algeria: Cereal Imports and Excess by Major Commodities and by Value, Volume and Unit Value

(1988=100; In terms of SDRs)

	Value Share in Total Imports in 1988 (In percent)	Years Ending December					Excess in Percent of Level in Excess Year=1988
		1986	1987	1988	1989	1990	
Value	100.0	67	51	100	115	104	12.6
Wheat (hard)	39.2	80	62	100	110	97	10.2
Wheat (soft)	25.4	63	51	100	117	109	12.0
Barley	12.2	--	13	100	128	114	29.0
Maize	21.7	87	56	100	116	105	7.2
Rice	1.5	77	27	100	89	80	25.4
Volume		61	67	100	98	98	15.2
Wheat (hard)		64	74	100	90	90	16.4
Wheat (soft)		65	76	100	100	100	11.8
Barley		--	18	100	112	112	31.6
Maize		83	72	100	103	103	7.8
Rice		102	36	100	94	94	14.8
Unit value		110	76	100	117	106	-1.8
Wheat (hard)		125	84	100	122	108	-7.8
Wheat (soft)		97	67	100	117	109	2.0
Barley		--	72	100	114	102	22.4
Maize		105	78	100	113	102	0.4
Rice		75	75	100	95	85	14.0

Source: Data provided by the Algerian authorities.

slaughtering during 1988. The volume of imports of wheat and rice would be only somewhat lower than in 1988.

In 1988, world cereal prices rose by a weighted average of 34 percent in terms of U.S. dollars (29 percent in terms of SDRs), mainly because of the loss of wheat and coarse grain production to adverse weather and the strong demand for rice for replenishment of stocks. Severe drought, particularly during the second and third quarters of the year, reduced output among large producers in the Western Hemisphere. A recovery in global cereal output is projected for 1989/90 in response to higher areas planted in North America and an expected improvement in yields. Nevertheless, the ratio of world stocks to consumption would remain low, and cereal markets are expected to remain tight. Thus, in 1989, Algeria's average import unit value is projected to rise by 17 percent. On the assumption of normal weather and the cumulation of adequate subsoil moisture in major producing areas, the average import unit value is expected to decline by 9 percent in 1990.

4. Staff appraisal and proposed decision

The Algerian authorities are expected to request a purchase of SDR 315.2 million (equivalent to 50.6 percent of quota) under the compensatory financing element of the compensatory and contingency financing facility. The proposed purchase is in respect of an export shortfall calculated at SDR 970.3 million in merchandise exports and an excess in cereal imports costs of SDR 66.0 million in calendar 1988. If approved, the proposed purchase would raise total purchases outstanding under the facility to 50.6 percent of quota.

In 1988, Algeria's balance of payments came under substantial pressure. Export earnings declined sharply, cereal imports nearly doubled, and interest payments increased. Although total imports were contained to less than the previous year's level, the current account shifted from surplus to deficit. This deficit was financed mainly by a drawdown in international reserves, and gross official reserves declined to less than two months of imports. In view of these developments, the staff considers that Algeria meets the criterion of balance of payments need for a compensatory financing purchase.

As the proposed purchase is for an amount of 50.6 percent of quota (40 percent of quota in respect of the export shortfall and 10.6 percent of quota for the excess in cereal import costs), the test of cooperation requires that the Fund be satisfied that Algeria will cooperate with the Fund in an effort to find, where required, appropriate solutions for its balance of payments difficulties. The staff is satisfied that the program of economic and financial adjustment being undertaken by the Algerian authorities, for which they are seeking the support of the Fund through a first credit tranche stand-by arrangement, meets the test of cooperation for a purchase of 50.6 percent of quota.

Export earnings in 1988, the shortfall year, were 16 percent lower than average earnings during the two preshortfall years. This development was attributable predominantly to the fall in earnings from energy exports, which accounted for 95 percent of total exports in that year. Underlying the decline in energy exports were declines in export unit values for all commodities as well as a reduction in the volumes of condensates and crude petroleum exports. The value of non-energy exports in the shortfall year was 60 percent over the average in the two preshortfall years. Total exports are projected to increase by 16 percent in the first post-shortfall year and by 13 percent in the second post-shortfall year, mainly as a result of increases in the volumes of condensates, crude petroleum, and LNG and increases in the unit values of all energy products. On the basis of these movements, a shortfall of SDR 970.3 million is calculated for total exports.

Export unit values for Algerian crude petroleum have closely followed movements in world crude petroleum prices, while the prices of Algeria's other energy product exports have followed those of crude oil, but somewhat less closely. In the three-year period ending in the shortfall year, movements in crude oil prices largely reflected changes in the output of crude petroleum by the members of OPEC. Following a sharp decline through July 1986, prices strengthened in the latter part of that year and in 1987 as the members of OPEC largely adhered to their production limitation arrangement. In the latter part of 1987, however, several OPEC members began to exceed the production quotas and total OPEC production rose substantially during the course of 1988, precipitating a decline in petroleum prices. The increase in total output by members of OPEC was influenced by the pressing revenue needs of some OPEC members and by noneconomic factors.

Algeria's petroleum output has been considerably more stable than that of OPEC members as a whole. Furthermore, in 1988 Algeria's production of crude oil and condensates declined, whereas the petroleum output of most other OPEC members increased. Algeria did not therefore contribute to the breakdown in the OPEC production-sharing agreement in the shortfall year and to the associated decline in crude oil prices. In addition, it should be noted that Algeria's output of natural gas has also been quite stable. Total hydrocarbon production increased steadily since the beginning of the present decade, only registering a decline in 1988, largely on account of the temporary fall in condensate production. In view of the production patterns and Algeria's small share in world energy markets, it may be concluded that Algeria's production policy has had a negligible influence on the prices of hydrocarbons. It might also be noted that the export shortfall on account of exports excluding crude petroleum is nearly three times the proposed purchase under the export element.

Outlays for cereal imports in the shortfall year were 69 percent higher than their average level in the two preshortfall years. This development was attributable to a serious drought in Algeria and to increases in international cereal prices. Cereal imports are expected to

increase by 15 percent in 1989, largely because of higher prices, and to decline by 10 percent in 1990, as a result of a projected easing of world cereal prices.

Taking all of the above factors into account, the staff believes that the export shortfall and the excess in cereal import costs are due to factors largely beyond the control of Algeria. The staff also considers that the request by Algeria for a purchase under the compensatory element of the compensatory and contingency financing facility will meet all the applicable requirements set forth in paragraphs 11 and 12 of that 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 from Algeria for a purchase equivalent to SDR 315.2 million for the compensatory financing of an export shortfall and an excess in the cost of cereal imports under Section IV of the decision on the Compensatory and Contingency Financing Facility (Executive Board Decision No. 8955-(88/126), adopted August 23, 1988).
2. The Fund determines that SDR 249.2 million of the requested purchase will apply to the export shortfall and SDR 66.0 million will apply to the excess in the cost of cereal imports.
3. The Fund notes the representation of Algeria and approves the purchase in accordance with the request.

Analysis of Energy Export Shortfalls and Excess Cereal Imports
and Prospects for Major Commodities

I. Energy Products

Exports of energy products accounted for 95 percent of Algeria's total export earnings and for about the same share of the shortfall in export earnings in the shortfall year 1988. This section of the Annex contains descriptions of the energy industry and energy policies in Algeria, recent developments in the world petroleum market, and recent developments and prospects for earnings from energy exports of Algeria.

1. Structure of the energy industry and production policy

By law, the State owns all petroleum and natural gas resources and controls their exploitation. The wholly government-owned national energy company, SONATRACH, manages all of the activities relating to oil and natural gas exploration, production, shipping, and foreign sales. All refining activities come under the purview of the national refining company, while domestic sales are carried out by NAFTAL, which is also wholly-owned by the Government.

The principal products of Algeria's energy industry are crude oil and associated gases, condensates, and natural gas. Crude oil production in 1988 averaged 687 thousand barrels per day or about 86 percent of the production capacity of about 800 thousand barrels per day. Crude oil reserves, estimated at 730 million tons, were equivalent to about 23 times annual production in 1988. Natural gas reserves which were estimated at 3,234 billion cubic meters, would last for 32 years at the 1988 rate of production, which was about 40 percent of the estimated capacity of 100 billion cubic meters per year. Condensate production, at 341 million barrels per day (mbd) in 1988, was about 80 percent of the production capacity of about 420 mbd. Algeria's exports of condensates were the largest in the world in 1988, and were about equal to those of the other OPEC members combined. Condensate reserves were also very large, equivalent to 175 times that of annual production in 1988. The domestic petroleum refining industry consists of five refineries and has a total refining capacity of 21.5 million tons per year. About one third of refinery output is consumed domestically, while the remainder is exported.

The main objectives of Algeria's National Energy Policy are to meet domestic energy requirements, to earn foreign resources needed for economic development, optimize the rate of exploitation of these nonrenewable resources, and conserve energy resources through efficient use. To meet domestic requirements, investments are continuously being made to further develop infrastructure for the transportation, storage and distribution of energy products. In the domestic market, the Government

is encouraging greater use of natural gas and propane, thereby reserving liquid hydrocarbons for export.

Since Algeria's export receipts remain highly dependent on energy products, the Government has attempted to reduce the country's vulnerability to adverse changes in the international market by changing the mix of energy exports away from crude oil toward exports of higher value-added refined petroleum products and gas products. Efforts are also being made to diversify Algeria's export markets.

Algeria, a founding member of OPEC, is a relatively small producer of crude oil. Its production accounts for about 3-4 percent of total OPEC production and only about 1 percent of world crude oil production. Crude oil production has declined gradually from 34.3 million tons in 1986 to 32.0 million tons in 1988 largely because of reduced production from aging wells. Declining investment in the period up to August 1986 exacerbated the fall in output from these wells.

The pricing of Algeria's crude oil exports has followed OPEC guidelines whenever these have been in effect, while at other times, Algerian crude oil has been sold at world spot market prices. Condensates, refined petroleum products, and LPG which are not subject to OPEC price guidelines have always been sold at world market prices. Prices of natural gas and LNG, sold mainly on long-term contracts, are largely linked to recent prices of competing fuels. As a result, prices for gas exports tend to follow crude oil and petroleum product prices with a lag (Chart 1, p. 8a).

The level and structure of domestic energy prices have been guided by domestic consumption and financial objectives. During the last five years, there have been several noteworthy changes in domestic energy prices (Table 8). Since 1983, gasoline prices have been raised by about 50 percent and the premium for high octane gasoline has been increased. The prices of light and heavy fuel oil were raised to a uniform level in 1986. Kerosene prices were also increased in 1986 to the same level as fuel oil prices.

2. Recent developments and outlook

a. Developments in the world petroleum market

In the period 1983-85, the members of OPEC followed a policy of concerted production restraint in support of agreed official export prices, with Saudi Arabia, de facto, acting as a swing producer, adjusting its output to accommodate changes in demand. However, faced with falling petroleum consumption, several members of OPEC were unable to adhere to their official export prices and production quotas. As a result, Saudi Arabia's petroleum output contracted sharply and by the summer of 1985 Saudi Arabia relinquished its role as swing producer.

Table 8. Algeria: Domestic Prices of Major Petroleum Products, 1983-88

(In Algerian dinars per liter)

	Jan. 1, 1983	July 1, 1983	April 1, 1984	Jan. 1, 1986	July 1, 1986	July 1, 1987	Jan. 1, 1988
<i>Gasoline</i>							
Super	2.25	2.70	2.80	2.80	3.20	3.20	3.45
Regular	1.95	2.20	2.30	2.30	2.60	2.70	2.85
<i>Fuel oil</i>							
Light	0.16	0.16	0.40	0.50	0.60	0.60	0.60
Heavy	0.06	0.06	0.43	0.50	0.60	0.60	0.60
Diesel	0.60	0.60	0.70	0.80	0.80	0.80	0.85
Kerosene	0.30	0.30	0.30	0.40	0.60	0.60	0.60

Source: Data provided by the Algerian authorities.

In the latter part of 1985, most OPEC members shifted to market-related pricing of their crude oil exports. Total production by members of OPEC rose substantially in late 1985 and during the first eight months of 1986. With the resulting increase in world oil supplies, the average spot market price for a representative barrel of crude oil 1/ fell from about \$28 a barrel in November 1985 to a low of about \$9 a barrel in July 1986. A decision by OPEC in August 1986 to restore the policy of collective output restraint was followed in December 1986 by an agreement on new production quotas for the first half of 1987; the agreement entailed a significant reduction in OPEC output relative to the level prevailing in the fourth quarter of 1986. It was also agreed to reintroduce fixed official export prices based upon a reference price of \$18 a barrel. 2/ As a result of these policy changes and a rise in world oil demand, spot market prices for crude oil started to recover in the latter part of 1986 and remained relatively firm during most of 1987. The annual average spot market price rose by almost 29 percent from 1986 to 1987.

In late 1987, however, a number of OPEC members again experienced difficulties in adhering to the output agreement and began to exceed their production quotas and to provide discounts from official export prices; the latter prices were abandoned de facto in the first half of 1988. Despite decisions taken at OPEC meetings in December 1987 and June 1988 to maintain production quotas at the level established for the second half of 1987 (16.6 mbd), 3/ actual output by OPEC members increased from about 17 1/2 mbd in the first quarter of 1988 to more than 22 mbd during the fourth quarter of 1988. As the increase in supply once again exceeded the growth in world oil consumption, the representative spot market price for crude oil declined from an average of about \$18.50 a barrel in the third quarter of 1987 to about \$13.60 a barrel in the third quarter of 1988. Prices declined further to a trough of \$11.50 in October 1988. Developments in the final quarter of 1988 and the first quarter of 1989 are described in the main text.

b. Recent developments in Algeria's petroleum sector and outlook

Reflecting the impact of diminishing investments in the period from 1984 to 1986 in maintaining the productivity of existing wells as well as in petroleum exploration, Algeria's production of crude oil has followed a slightly declining trend in recent years (Table 9). Following the passage of a law in August 1986, permitting equity participation by foreign investors in prospecting and production, investment in petroleum fields increased from about SDR 170 million in 1986 and 1987 to

1/ The average of spot market prices of U.K. Brent (light crude), Dubai (medium crude), and Alaskan North Slope (heavy crude).

2/ Representing the simple average of the official export prices of seven crude oils.

3/ Including a notional quota for Iraq which did not participate in the output agreements.

Table 9. Algeria: Petroleum Balance, 1985-90

(In millions of tons)

	1985	1986	1987	1988	<u>Projected</u>	
					1989	1990
Crude petroleum						
Production	50.9	52.8	53.4	51.9	54.1	56.4
Crude	33.8	34.3	32.2	32.0	31.5	33.0
Condensates	13.9	14.6	16.6	15.1	17.5	18.4
Liquefied petroleum gas	3.2	3.9	4.6	4.8	5.1	5.0
Imports	0.3	0.4	0.4	0.5	0.5	0.5
Refinery input	19.6	21.4	20.8	21.5	19.8	21.0
Direct exports	30.3	29.9	31.2	28.8	32.2	33.8
Crude	15.0	13.0	11.8	10.7	11.8	12.0
Condensates	13.2	14.1	16.0	14.5	17.0	18.4
LPG	2.1	2.8	3.4	3.6	3.4	3.4
LPG consumption	1.1	1.2	1.2	1.2	1.3	1.4
Discrepancy	0.2	0.7	0.7	1.0	1.3	0.7
Refined products						
Production	18.6	20.5	19.5	20.7	19.0	20.0
Exports	12.6	14.2	13.5	14.7	11.9	13.6
Domestic consumption	6.1	6.3	6.3	6.3	6.6	6.8
Discrepancy	--	--	-0.3	-0.3	0.5	-0.4
Memorandum items:						
Investment in petroleum fields (in SDR millions)	249	172	169	314	575	...
Wells drilled (number)	43	35	37	41

Source: Data provided by the Algerian authorities.

SDR 314 million in 1988. Investment amounting to SDR 575 million are projected for 1989. Owing to the time lag between investment and an increase in output, crude oil production is expected to decline through 1989, before recovering from 1990 onwards.

The output of condensates has increased rapidly since the Hassi R'Mel field and the d'Alrar field came on stream in 1982 and 1984, respectively. The volume of condensates exports, which had followed a generally rising trend until 1987, declined in 1988 when operations at Hassi R'Mel were temporarily halted by maintenance work. The rising trend is expected to resume in 1989 and 1990, when production from two further fields are expected to come on stream. As condensates are close substitutes for light crude oils, condensate price movements have closely followed those of light crude oil.

The input capacity of Algeria's petroleum refineries amounts to 21.5 million tons a year. The refineries were able to operate at or near this capacity in 1986 and 1988. Exports of refined petroleum products are projected to decline in 1989 because of anticipated maintenance work in various refineries. A recovery is projected in the following year, when refineries are expected to operate near capacity.

The production of liquefied petroleum gas, which is the least important category among energy exports, rose consistently through 1988. Production is projected to rise further in 1989 and level off in 1990; increased domestic use is expected to reduce the amount available for export. LPG export unit values are projected to follow movements in the world price of crude oil.

The volume of natural gas transported, which represents the amount of usable production, has followed a generally rising trend through 1988 that is expected to continue through 1990 (Table 10). Domestic consumption has risen at a slower pace but as the amount that can be exported by pipeline has been limited by demand from one country, most of the increase in output has been destined for liquefaction. Virtually all of the resulting liquefied natural gas is exported. Gas has been sold mainly under long-term contracts; the prices in recent contracts have been generally related to the recent prices of competing fuels.

II. Cereal Imports

1. Structure of cereal production

As part of economy-wide reforms, the Government implemented a major restructuring of the agricultural sector in 1980-84, including a reduction in the scope of socialized agriculture. During this period, collective farms were either merged with state farms, domaines agricoles socialistes (DAS), or privatized. As a result, the total area controlled by the socialist sector was reduced from 3.5 million hectares to 2.4 million hectares, a reversal of the previous trend. The number of state farms was

Table 10. Algeria: Natural Gas Balance, 1985-90

(In billions of cubic meters)

	1985	1986	1987	1988	1989	1990
Gross production <u>1/</u>	90.7	99.0	111.5	112.6	102.8	120.0
Net production <u>2/</u>	55.8	52.4	55.8	52.1	56.7	60.5
Volume transported <u>3/</u>	33.9	33.9	38.7	39.9	46.4	50.4
Domestic consumption	7.6	8.4	8.8	9.1	9.9	10.6
Sales for liquefaction	17.6	17.6	19.1	20.2	26.6	28.5
LNG production	12.6	12.5	13.9	14.8	19.5	20.8
Of which: LNG exports	12.6	12.3	14.0	15.0	19.5	20.8
Exports by pipeline	9.1	8.6	11.7	11.1	10.5	11.4
Discrepancy	-0.4	-0.7	-0.8	-0.6	-0.6	-0.1

Source: Data provided by the Algerian authorities.

1/ All gas companies.2/ Gross production less gas reinjected into producing oil wells.3/ Equal to production minus gas flared, gas used for lifting and for fuel gas, and other losses in the fields.

increased to 3,400, but their average size was reduced to about 700 hectares and, to encourage efficiency, their autonomy was increased. From 1983, the Government promoted the pricing of agricultural input and output closer to costs. In particular, producer prices of cereals were set at levels to cover the costs of the most efficient state farms. In view of lower productivity relative to external producers, this still meant relatively high domestic producer prices. Moreover, less efficient state farms necessarily incurred losses, which were covered through the budget.

Between October 1987 and May 1988, the Government carried out the most far-reaching reform of the agricultural sector in two decades. State farms were abolished and the land and associated assets were distributed to voluntary associations (exploitations agricoles collectives) of no less than three farmers each. These associations are essentially private and permanent usufruct rights to land would accrue after five years.

2. Agricultural performance

The rate of self-sufficiency in cereals has dropped drastically over the years because domestic production has failed to keep pace with rising consumption resulting from population growth and a growing livestock industry. For wheat, in particular, the share of domestic production (channeled through official agencies) in total wheat consumption declined from 70 percent in 1966-70 to 36 percent in 1976-80, 24 percent in 1982-86, and 7 percent in 1988. The self sufficiency rate for barley declined from 55 percent in 1986 to 9 percent in 1988 (Table 11). The mirror image of these developments has been the escalating dependence on imports to meet domestic requirements.

From the mid-1960s to the present, the area devoted to the cultivation of cereals has fluctuated narrowly about a level trend. However, there was a marked shift in land devoted to different types of cereals. The area devoted to hard and soft wheat cultivation declined, while the area devoted to barley cultivation increased partly because barley is more drought-resistant and partly because the growing livestock industry generated a substantial demand for feedgrains. Reflecting the shift in land use, the production of barley has increased on average at a higher annual rate than hard or soft wheat.

Yields have been highly volatile, primarily on account of the vulnerability of production to the vagaries of weather. The share of irrigated agricultural land in total cultivated land has been relatively low, amounting to 7.5 percent in 1986, virtually the same rate recorded in 1980. The share of irrigated land in total land devoted to cereals has been even less, amounting to 0.8 percent in 1986, compared with 0.3 percent in 1980. In short, moisture adequacy in cereal growing areas has been almost totally dependent on rain.

ALGERIA - Relations with the Fund
(As of March 31, 1989)

I. Membership Status

- | | |
|------------------------|--------------------|
| (a) Date of membership | September 26, 1963 |
| (b) Status | Article XIV |

A. Financial Relations

II. General Department (General Resources Account)

- | | |
|--|---|
| (a) Quota | SDR 623.1 million |
| (b) Total Fund holdings
of currency | SDR 623.1 million
(100.0 percent of quota) |
| (c) Fund credit | None |
| (d) Reserve tranche position | Nil |
| (e) Current operational budget
(maximum use of currency
for repurchases) | None |
| (f) Lending to the Fund | None |

III. Stand-By Arrangements and Special Facilities

- | | |
|------------------------------------|------|
| (a) Current stand-by arrangement | None |
| (b) Previous stand-by arrangements | None |
| (c) Current special facilities | None |

IV. SDR Department

- | | |
|-------------------------------|--|
| (a) Net cumulative allocation | SDR 128.64 million |
| (b) Holdings | SDR 0.71 million
(0.55 percent of cumulative
allocation) |

V. Administered Accounts

- | | |
|-------------------------|------|
| (a) Trust Fund loan | None |
| (b) SFF Subsidy Account | None |

VI. Financial Obligations Due to the Fund None

increased to 3,400, but their average size was reduced to about 700 hectares and, to encourage efficiency, their autonomy was increased. From 1983, the Government promoted the pricing of agricultural input and output closer to costs. In particular, producer prices of cereals were set at levels to cover the costs of the most efficient state farms. In view of lower productivity relative to external producers, this still meant relatively high domestic producer prices. Moreover, less efficient state farms necessarily incurred losses, which were covered through the budget.

Between October 1987 and May 1988, the Government carried out the most far-reaching reform of the agricultural sector in two decades. State farms were abolished and the land and associated assets were distributed to voluntary associations (exploitations agricoles collectives) of no less than three farmers each. These associations are essentially private and permanent usufruct rights to land would accrue after five years.

2. Agricultural performance

The rate of self-sufficiency in cereals has dropped drastically over the years because domestic production has failed to keep pace with rising consumption resulting from population growth and a growing livestock industry. For wheat, in particular, the share of domestic production (channeled through official agencies) in total wheat consumption declined from 70 percent in 1966-70 to 36 percent in 1976-80, 24 percent in 1982-86, and 7 percent in 1988. The self sufficiency rate for barley declined from 55 percent in 1986 to 9 percent in 1988 (Table 11). The mirror image of these developments has been the escalating dependence on imports to meet domestic requirements.

From the mid-1960s to the present, the area devoted to the cultivation of cereals has fluctuated narrowly about a level trend. However, there was a marked shift in land devoted to different types of cereals. The area devoted to hard and soft wheat cultivation declined, while the area devoted to barley cultivation increased partly because barley is more drought-resistant and partly because the growing livestock industry generated a substantial demand for feedgrains. Reflecting the shift in land use, the production of barley has increased on average at a higher annual rate than hard or soft wheat.

Yields have been highly volatile, primarily on account of the vulnerability of production to the vagaries of weather. The share of irrigated agricultural land in total cultivated land has been relatively low, amounting to 7.5 percent in 1986, virtually the same rate recorded in 1980. The share of irrigated land in total land devoted to cereals has been even less, amounting to 0.8 percent in 1986, compared with 0.3 percent in 1980. In short, moisture adequacy in cereal growing areas has been almost totally dependent on rain.

Table 11. Algeria: Cereals Balances, 1986-90

(In thousands of metric tons) ^{1/}

	Imports	Production ^{2/}	Consumption ^{2/}	End-Period Stocks
Wheat (hard)				313 ^{3/}
1986	1,265	281	1,649	210
1987	1,453	304	1,802	163
1988	1,972	132	2,058	210
1989	1,783	300	2,073	220
1990	1,783	300	2,073	230
Wheat (soft)				307 ^{3/}
1986	968	302	1,216	351
1987	1,118	264	1,542	201
1988	1,479	115	1,572	223
1989	1,481	300	1,781	223
1990	1,481	300	1,781	223
Barley				407 ^{3/}
1986	--	291	528	170
1987	157	185	472	40
1988	848	83	886	85
1989	950	200	1,150	85
1990	950	200	1,150	85
Maize				21 ^{3/}
1986	998	--	894	125
1987	874	1	926	74
1988	1,209	--	1,223	60
1989	1,250	1	1,251	60
1990	1,250	1	1,251	60
Rice				4 ^{3/}
1986	33	--	23	13
1987	12	--	24	1
1988	32	--	29	3
1989	30	--	30	3
1990	30	--	30	3
Total				1,052 ^{3/}
1986	3,264	874	4,210	879
1987	3,614	754	4,766	451
1988	5,540	330	5,768	581
1989	5,494	801	6,285	591
1990	5,494	801	6,285	601

Source: Data provided by the Algerian authorities.

^{1/} Totals may not add due to rounding.^{2/} Includes only production marketed through official channels.^{3/} Stocks at end of 1985.

3. Marketing system and consumption subsidies

Current policy provides that all cereals, along with pulses, grapes, and olives, be sold at fixed prices through official channels. Prices are set by an interministerial committee, the Comite des Prix. A tolerated "parallel market" exists for domestically-produced cereals, mainly feedgrains, destined for farmers' own or their neighbor's consumption; this market accounts for about 60-70 percent of total domestic production. Given the large share of imports in total consumption, however, the major share of total supply is marketed through official channels.

On behalf of the national marketing bureau (OAIC), cooperatives purchase domestically-grown cereals at producer prices and sell them at lower base prices to mills. The difference, prix de base de retrocession, is directly reimbursed to OAIC to cover its losses. At the final consumption stage, further subsidies are paid to maintain minimum prices for bread products. Since 1987, taxes on nonessential goods have financed food subsidies through the Fonds de Compensation.

In 1982, the Government liberalized prices of fruits and vegetables while maintaining control over cereals prices. One major consequence of this policy change has been the widening disparity between their respective prices at the producer and consumer levels.

4. Outlook

The short-term impact of the agricultural reform, which culminated in May 1988, is difficult to ascertain. It is very likely, however, that the impact of the 1988 drought on cereal production would be felt through 1990. Production in 1989 is expected to recover to about 800 thousand tons, roughly equal to the average 1986-87 level, and level off in 1990. With consumption rising, the self-sufficiency ratio (production through official channels divided by consumption), which declined from 16 percent in 1987 to 6 percent in 1988, is expected to recover to only 13 percent in 1989 and 1990. This implies a 15 percent increase in the value of cereal imports in 1989, when prices are expected to remain firm. Imports are projected to decrease by 10 percent in 1990, mainly because of an anticipated easing of world prices.

ALGERIA - Relations with the Fund
(As of March 31, 1989)

I. Membership Status

- | | |
|------------------------|--------------------|
| (a) Date of membership | September 26, 1963 |
| (b) Status | Article XIV |

A. Financial Relations

II. General Department (General Resources Account)

- | | |
|--|---|
| (a) Quota | SDR 623.1 million |
| (b) Total Fund holdings
of currency | SDR 623.1 million
(100.0 percent of quota) |
| (c) Fund credit | None |
| (d) Reserve tranche position | Nil |
| (e) Current operational budget
(maximum use of currency
for repurchases) | None |
| (f) Lending to the Fund | None |

III. Stand-By Arrangements and Special Facilities

- | | |
|------------------------------------|------|
| (a) Current stand-by arrangement | None |
| (b) Previous stand-by arrangements | None |
| (c) Current special facilities | None |

IV. SDR Department

- | | |
|-------------------------------|--|
| (a) Net cumulative allocation | SDR 128.64 million |
| (b) Holdings | SDR 0.71 million
(0.55 percent of cumulative
allocation) |

V. Administered Accounts

- | | |
|-------------------------|------|
| (a) Trust Fund loan | None |
| (b) SFF Subsidy Account | None |

VI. Financial Obligations Due to the Fund None

B. Nonfinancial Relations

VII. Exchange Rate Arrangement

Since January 21, 1974, the exchange rate of the dinar has been determined on the basis of a fixed relationship with a basket of currencies, adjusted from time to time. At the end of March 1989, the average of the buying and selling rates for the U.S. dollar, which is the representative rate under Rule 0-3, was US\$1 = DA 7.0663, equivalent to SDR 1 = DA 9.1347.

VIII. Last Article IV Consultation

The 1987 Article IV consultation discussions with Algeria were held in Algiers during the period October 18-30, 1987. The staff report (SM/88/2, 1/4/88) was discussed by the Executive Board on February 5, 1988, and the following decision was adopted:

"1. The Fund takes this decision relating to Algeria's exchange measures subject to Article VIII, Section 3, in concluding the 1987 Article XIV consultation with Algeria, in the light of the 1987 Article IV consultation with Algeria conducted under Decision No. 5392-(77/63), adopted April 29, 1977 as amended (Surveillance over Exchange Rate Policies).

2. Algeria maintains the restrictive measures described in SM/88/2 in accordance with Article XIV, Section 2, except that the multiple currency practice resulting from the premium on workers' remittances from abroad is subject to approval by the Fund under Article VIII, Section 3. The Fund urges Algeria to ease the restrictions on payments and transfers for current international transactions which continue to be in effect, and to adopt policies which would enable it to eliminate the multiple currency practice."

IX. Technical Assistance

1. Mr. Madelin visited Algiers November 4-7, 1986 to assess the Central Bank's technical assistance needs in the area of central bank organization and bank supervision.

2. Messrs. Luu and Marciniak visited Algiers December 6-21, 1986 to assist the Central Bank's Research Department in improving monetary statistics compilation.

3. Messrs. Leite, Sacerdoti, and Snoek visited Algiers January 16-28, 1988 to advise the authorities both on the reorganization of the Central Bank and on the introduction of policy instruments to control monetary and credit expansion.

4. Messrs. Parmentier, Marciniak, and Raymond visited Algiers February 7-16, 1988 to conduct a seminar on monetary and financial analysis.

5. Messrs. Conrad, Corfmat, and Cornely visited Algiers June 12-30, 1988 to review the draft National Tax Reform.

6. Messrs. Anjaria, Borensztein, and Marciniak visited Algiers July 8-18, 1988 to assist the authorities in the areas of the payments system and exchange rate determination.

7. Messrs. Premchand, Tazi, and Bouley visited Algiers October 17-November 6, 1988 to review the budgetary process and the operations of the Treasury.

8. Messrs. Conrad, Cornely, and Ms. Cheasty visited Algiers January 15-February 1, 1989 to appraise the impact of the forthcoming tax reform.

9. Messrs. Gautier and Snoek visited Algiers April 9-22, 1989 to advise the authorities on bank supervision.

X. Resident Representative/Advisor: None.

FOR
AGENDA

EBS/89/89
Supplement 1

CONFIDENTIAL

May 26, 1989

To: Members of the Executive Board

From: *The Secretary*

Subject: Algeria - Use of Fund Resources - Compensatory and
Contingency Financing Facility - Request for Compensatory
Financing of Fluctuations in Exports and in the Cost of
Cereal Imports

Attached is the request from Algeria for a purchase
equivalent to SDR 315.2 million referred to in EBS/89/89 (5/5/89).
This subject is scheduled for consideration on Wednesday, May 31, 1989.

Att: (1)

BANQUE CENTRAL D'ALGERIE
ALGIERS (ALGERIA)

ALGIERS, MAY 24, 1989

INTERFUND TREASURER'S

REF.: INTENDED COMPENSATORY FINANCING PURCHASE
YOUR TELEX GRA NO. 12 OF 5/22/89

1. AS FISCAL AGENCY FOR THE GOVERNMENT OF ALGERIA WE DESIRE TO PURCHASE FROM THE INTERNATIONAL MONETARY FUND THE EQUIVALENTS OF SDR 41,500,000 IN CANADIAN DOLLARS, SDR 50,100,000 IN ITALIAN LIRE, SDR 80,600,000 IN KOREAN WON, SDR 39,200,000 IN NETHERLANDS GUILDERS, SDR 29,200,000 IN PORTUGUESE ESCUDOS, SDR 10,100,000 IN SINGAPORE DOLLARS, AND SDR 64,500,000 IN SPANISH PESETAS TOTALING THE EQUIVALENT OF SDR 315,200,000, IN ACCORDANCE WITH TERMS OF ARTICLE V, SECTIONS 3 AND 4 AND EXECUTIVE BOARD DECISION NO. 8955-(88/126), ADOPTED AUGUST 23, 1988. IN THIS CONNECTION WE STATE THAT WE WILL COOPERATE WITH THE INTERNATIONAL MONETARY FUND IN AN EFFORT TO FIND, WHERE REQUIRED, APPROPRIATE SOLUTIONS FOR THE BALANCE OF PAYMENTS DIFFICULTIES.

2. WE DO HEREBY REPRESENT THAT THIS PURCHASE IS NEEDED IN ACCORDANCE WITH THE PROVISIONS OF FUND AGREEMENT.

3. PLEASE PLACE CURRENCIES AT OUR DISPOSAL AT RESPECTIVE DEPOSITORIES AND REQUEST THOSE INSTITUTIONS TO ARRANGE EXCHANGE OF CURRENCIES INTO U.S. DOLLARS AND PAYMENT OF PROCEEDS TO OUR ACCOUNT WITH FEDERAL RESERVE BANK OF NEW YORK, NEW YORK ON VALUE DATE OF PURCHASE.

4. THE EQUIVALENT OF DESIRED PURCHASE, NAMELY ALGERIAN DINARS 2,940,106,522.89, WILL BE CREDITED TO FUND'S NO. 1 ACCOUNT WITH OURSELVES, ON VALUE DATE OF PURCHASE.

5. WE STATE THAT REPURCHASE IN RESPECT OF THIS PURCHASE SHALL BE MADE IN ACCORDANCE WITH ARTICLE V, SECTION 7 AND THE FUND'S POLICIES AND PRACTICES AT THE TIME OF REPURCHASE.

6. REGARDING SERVICE CHARGE, PLEASE DEBIT ALGERIA'S SDR ACCOUNT WITH SDR 1,576,000 ON VALUE DATE OF PURCHASE.

THE GOVERNOR

CENTRAL BANK OF ALGERIA

Received in Cable Room May 24, 1989