

producing project. A chemical plant is planned here to produce 1 million tons of phosphate fertilizer a year. Iraq is also negotiating a second area plant with Mitsubishi. The first will be completed by 1978.

Unfortunately it may be these later projects that will suffer from the industrial investment cutbacks. Cutbacks may also prevent the foundation of a planned industrial city in the Basrah region for 100,000 people.

A look at development plans now underway shows a clear emphasis on increased social services, reducing consumer prices, and education. The education budget for 1977 has been increased from \$582.08 million in 1976, to \$631.04 million, with emphasis on sending 50 percent of the elementary school children to high schools and 50 percent to vocational schools. The number of graduates increased from 34,000 in 1975 to 70,000 in 1976 and expected 150,000 for 1980.

Iraq is suffering from not just a skilled labour shortage but a general labour shortage. With migration of rural populations to the towns where they are desperately needed, only 36 percent of the population now lives in a rural environment. The migration of 500 Egyptian farm

families to Iraq where they will receive 12 acres of land, a down payment of 500 Egyptian pounds and a monthly payment of 60 Egyptian pounds, equipment, fertilizers and education in new farming methods will help to alleviate the problem.

In 1976 the government started a drive to move faster to agro-industries and towards state farms, of which there are now 21. Informed sources say that 20 percent of the 1976-80 plan will go to agriculture, while only 8 percent will go for industry.

Mr. Kachachi reports that the agro-industries, "The companies will dig canals, do land leveling, leaching and preparing the soil for cultivation and all the infrastructure that is required... They must train the Iraqi staff and so they will stay for two years after finishing the job."

Overall, thanks to a centralized economy, the government was able to pinpoint immediately the problems especially in the case of 1974-75 spending spree to "beat inflation" in the West which drained the foreign reserves from \$3.273 million in the last quarter of 1974 to \$2.910 million in the first 1975 quarter, a level that was not reached again until the third quarter of 1976.

Algeria: Basically Sound Despite Planning Problems

ALGERIA

The Algerian government has implemented a centralized planning system for the economy to reinvest totally all available surplus from oil revenues into the development of heavy liquified natural gas (LNG) processing, petrochemical, steel and other industries, while developing infrastructure and agriculture. The 1974-77 Plan (Table 1) shows the impressive breakdown of investments scheduled in 1974, which has overall been adhered to, and which despite Algeria's international and domestic planning problems has produced excellent economic growth when compared to the chaotic situation in Saudi Arabia or Iran today. Of the \$31.6 billion in long-term investments scheduled over 1974-77, fully \$16.3 billion has been allocated for industrial development, over 90 percent of that in the state sector. Economic infrastructure at \$4.1 billion, agricultural development at \$2.3 billion, and education at \$2.3 billion have also been heavily promoted.

Algeria has, however, been under considerable political pressure from its bankers since President Boumedienne began his leading role as proponent of the new international economic order with its included features of debt moratorium and a new monetary system. In reaction to this pressure, Algeria has moved closer to the Soviet bloc, with its central bank now one of the few Third World nations with a transferable ruble clearing account at the Comecon's International Bank for Economic Cooperation.

Despite its efforts Algeria has also developed

significant planning problems, the major one being the purely external political constraint under which fully 50 percent of the planned liquified natural gas (LNG) export program has been kept from implementation by the refusal of the U.S. Federal Power Commission (FPC) to

Table 1 —
Algerian 1974-77 Budget Plan:
Table Of Investments

In millions of dollars

	TOTAL SPENDING AUTHORIZATION	PERCENT	COST OF THE NEW PROGRAMS
Industry	12,000	43.5	16,348
Agriculture	3,001	10.9	2,306
Water Power	1,150	4.2	1,210
Tourism	375	1.4	300
Fishing	39	0.1	14
Economic Infrastructures	3,880	14.0	4,124
Education	2,487	9.0	2,247
Social	3,653	13.3	4,082
Administrative Equipment	359	1.3	326
Studies-Diverse- Unforeseen	630	2.3	616
TOTAL	27,554	100.0	31,618

Chart 1— LNG Exports

Customer	Country	Destination	Volume (billion m ³ /year)	Start of delivery
<i>Operational</i>				
British Gas Corp	... Britain	Canvey Island	1.0	1964
Gaz de France	... France	Le Havre	0.5	1965
Gaz de France	... France	Fos	3.5	1972
Distrigas	... USA	Boston	0.45	1972
<i>Contracts approved</i>				
El Paso	... USA	Savannah & Cove Point	10.0	1977/8
Enagas	... Spain	Barcelona	4.5	1976
Distrigas	... Belgium	Zeebrugge	3.5 b)	1979
Gaz de France	... France	Fos (?)	3.5	1980
<i>Signed contracts awaiting approval</i>				
Easogas	... USA	—	1.0	1977
Distrigas	... USA	Boston	6.0	1980
			0.75	1976
			1.2 c)	1978
Panhandle	USA	—	4.5	1980
El Paso	USA	—	10.0	1981
Tenneco	Canada d)	St John	10.0	1981

grant El Paso and other corporations licenses for Algerian exports. Secondly, the Boumedienne government has allowed development policy to be shaped by the Hudson Institute and other monetarist consulting agencies introduced into the country by the New York banking community, causing severe financial mismanagement.

The economy, however, is more than basically sound: a tremendous potential for real industrialization has been laid which can absorb high-technology plant and equipment exports from U.S., European, Japanese, and East bloc industry as the population is brought up to higher living standards.

The centerpiece of the economy is of course investment in expanded hydrocarbon production, which will be seen in Table 2 to be a major share, or \$6.5 billion, of the total

Table 2 — Algerian 1974-77 Budget Plan : Industrial Investments

In millions of dollars		
	Total Authorized Expenses 1974/77	Cost of the New Programs
Hydrocarbons	4,875	6,500
Mines	275	200
Electricity	381	425
Iron Smelting	1,466	2,000
Electric and Mechanical Construction	1,559	2,675
Chemistry	1,000	1,212
Construction Materials	1,025	1,137
Nutrition Industries	367	562
Textiles	355	500
Leathers	42	75
Wood-Paper-and assorted	415	750
Local industry and handicrafts	227	287
General Studies	10	12
TOTAL	12,000	16,337

Table 3 — Algerian Actual 1976 And Announced 1977 Budget

	ACTUAL 1976	PLANNED* 1977	% CHANGE 77 OVER 76
I EXPENDITURE: TOTAL (1+2)	10	13.2	+32
1. INVESTMENT (A+B)	6.4	9.3	
A. STATE INDUSTRY	4.2	6.3	+31
B. INFRASTRUCTURE EQUIPMENT	2.2	3.0	+37
2. OPERATING EXPENSES	3.6	3.9	+ 8
II REVENUE: TOTAL (1+2)	6.0	7.0	
1. OIL AND GAS	3.8	4.3**	
2. OTHER TAXES	2.2	2.7	
III DEFICIT (II-I)	-4.0	-6.2	+50

* ANNOUNCED BY THE GOVERNMENT JANUARY 3, 1977

** ASSUMING A FIRM 10% OIL PRICE INCREASE AND \$300 MILLION IN NEW LNG RECEIPTS.

\$16.4 billion 1974-77 industrial investment budget. Algerian hopes lie in the expansion of the LNG production, since her oil production has just about reached the limits of capacity expansion at the 1976 production level of 1 mbd. Just to keep at that level, over \$500 million a year is spent in new exploration and in gas injection stimulation methods. There is, however, a major refinery expansion program being implemented, with today's refinery capacity of 122,400 b-d to be increased to over 750,000 b-d by 1980, a major investment program.

In 1976, Algerian LNG sales amounted to some 5.5 billion cubic meters (bcm), which brought in less than \$100 million in revenues. (see chart 1) The planned expansion programs are to 20.5 bcm for 1978, and to over 70 bcm by 1980, making Algeria the world's largest producer of LNG.

In order to accomplish this, however, a tremendous expansion of expenditure on plant and equipment is necessary, since the natural gas must be liquified before shipment. Presently there are only two LNG plants on line with a combined production capacity of 6 bcm per year, with expansion of a total of 14 bcm planned for the end of 1977. Contracts are under negotiations for plant to liquify the full 1980 production target.

But, political intervention by the Exxon-Mobil group of oil companies is costing Algeria 50 percent of its LNG trade. Fully 35 bcm out of the planned 1980 exports of 70 bcm are scheduled to be contracted to U.S. firms such as El Paso Gas, but have not been approved by the U.S. Federal Power Commission. Reasons given range from environmentalist worries about safety of storage of LNG to minnows near the U.S. storage sites to outright FPC statements that such a large contract with Algeria is politically too hot. It is however well known that since 1964 El Paso, which has had one 10 bcm Algerian contract tentatively approved for 1977-78 but still awaits approval on another 10 bcm, has been trying to step up U.S. LNG sales specifically to undercut the Exxon-Mobil oil share of the U.S. energy market.

Because of repeated delays by the FPC, Algerian LNG plant construction and gas development at this point is fully 18 months behind schedule, with costs rising to over

\$2 billion a year for LNG development alone, compared to the \$6.5 billion over four years original budget for all hydrocarbons.

The Italian state oil company ENI in February announced plans which will significantly ease the problem, by firming up their contract for 10 bcm delivery by 1980 through tankers, previous plans for a sub-Mediterranean pipeline having been thwarted by the Tunisian government. The Italians are reportedly seeking several billion dollars in financing from the Saudi Arabians, to be advanced to Algeria.

Petrochemicals

Sonatrach already has a plant that produces 1,000 tons a day of ammonia and 400 tons per day of urea and plans a huge increase in these projects. Plans include complexes at Tebessa and Annaba, both to produce 1,600 tons per day of sulphuric acid, 500 tons per day of phosphoric acid and phosphoric acid concentrates, as well as a 280,000 tons per year super phosphates plant at Tebessa and a sodium tripolyphosphate plant at Annaba.

To meet its export commitments, Sonatrach is investing heavily in pipelines and liquification plant. A 40-inch, 580 kilometer pipeline from Hassi R'Mel to the Skikda port was opened in 1972 with a capacity of 12.7 billion cubic meters-year of gas.

Iron and Steel

Iron ore is mined in Algeria, though through transportation and distribution bottlenecks production is being held steady at about the 300 metric tons level, most of which is exported.

In January 1977 a \$3.5 billion contract was signed with Thyssen Company to build two steel plants with production capacity of 8-10 tons per year. This means that Algeria has stepped up the time table for steel production, as their 1976 target was a production rate of 5 million tons. By the mid 1980's they should be producing around 15 million tons a year.

Monetarist Financial Blunders

During 1976 and in the 1977 budget announced by the government January 3, 1977, the Algerian government

Table 4 — Algerian Trade And Reserves

	1973	1974				1975				1976					
		I	II	III	IV	I	II	III	IV	I	II	III	OCT	NOV	DEC
TRADE (ALG. DINARS BILLION)															
EXPORTS	7.4	5.1	5.3	4.5	4.2	4.3	4.4	4.2	4.9	5.5	5.5	4.8	1.5		
IMPORTS	8.8	2.9	3.3	4.4	4.9	5.1	4.9	5.1	6.1	6.1	6.0	5.9			
TRADE BALANCE	-1.4	2.2	2.0	0.1	-0.6	-0.8	-0.5	-0.9	-1.2	-0.6	-0.5	-1.1			
RESERVES (US BILLIONS OF DOLLARS)	1.1	1.4	1.8	1.9	1.6	1.0	1.1	1.2	1.3	1.5	1.5	2.0	2.1	1.9	1.9
DEBT (US BILLIONS OF DOLLARS)															
LONG TERM	3.0	3.0	-0-	-0-	-0-	-0-	-0-	-0-	1.5	-0-	-0-	-0-			3.0
SHORT TERM	NA								3.0						4.5

has fully kept up with the impressive industrial development projections of the 1974-77 Plan, as a comparison of Tables 1 and 3 show. Compared to a projected \$31.6 billion capital investment policy over four years averaging almost \$8 billion per year (Table 1), actual 1976 and 1977 estimated expenditures are \$6.4 billion and \$9.3 billion respectively (Table 2), a 30 percent rise during 1977.

However, the delays in the LNG programs are largely Hudson Institute-inspired financial mismanagement, have reduced revenues and raised costs such that the pace of investment has been kept up only at the expense of a \$4 billion budget deficit in 1976 and a \$6-7 billion minimum deficit in 1977:

*** The financial costs of the oil and gas program have been huge, probably amounting in 1977 to \$3 billion or the entire 1977-1976 increase in investment, almost entirely due to the delay and resultant increased costs. For example, the typical LNG plant first planned in 1973 at \$400 million ran at over \$1.5 billion in 1976 prices.

*** Hudson Institute planners mis-ordering of heavy machinery far beyond utilization possibilities tied up billions of dollars in half-built plant and its financing costs, which bring in no revenue.

*** Hudson Institute designed Maoist agricultural policies have left Algeria with a \$1.5 billion food import bill in 1976, aside from budgetary expenses, by stressing village by village communes at the expense of comprehensive mechanization.

As a result, over \$12 billion in foreign debt had been run

up again at the end of 1976, from financing imports both on the investment budget deficit and on current account such as food, leaving a huge trade deficit (Table 4).

In 1974, the Hudson planners put through a \$3 billion long term debt. Since then, new debt has built up during 1975-76 under vastly more unfavorable circumstances. During 1975-76 some \$4.5 billion in long and medium term Eurocurrency credits were borrowed (Table 4) at higher interest rates than the original long-term loans. Worse, over \$7.5 billion in short-term suppliers credits have been run up, which must be constantly rolled over and thus make themselves increasingly felt in yearly planning revisions. Since mid-1976 Algeria has been openly black-listed off the longer-term Eurocurrency market, after the Boumedienne government rejected conditions by Citibank and others that all medium and long-term finance be tied to specific projects upon which the banks would then have first lien on revenues, as in "Open Door" 19th-century China.

Clearly nothing is wrong with the centralized Algerian economy per se. Even a simple free-trade approach by sane Western industrialists to speeding up LNG contracts, coupled with longer repayment periods and fresh credits for completion of half-finished projects, would immediately work wonders.

Barring this, Algeria plainly has no choice but to continue on towards unilateral debt moratorium and fuller integration into the CMEA.

Iran At The Crossroads

IRAN

The year 1976 marked a critical turning point for the Iranian economy which, despite Iran's petrodollar windfall after 1973-74, posted a trade deficit of \$2.4 billion.

The current crisis in Iran bursts the bubble of the Shah's proclamations that Iran was on the way to becoming the world's fifth industrial power by the 1980s. The glorious dreams of Persian Empire lie abandoned on the planning boards in Teheran, and the Shah and his retainers are struggling to keep the country liquid. As the Shah said recently in agreeing reluctantly to cuts in his prized military budget: "Bankruptcy is worse than defeat."

According to reliable sources, the entire Iranian Cabinet is up in arms over the Shah's outlandish schemes for national development and for the military. At recent Cabinet meetings, the Iranian government has risked the wrath of the autocratic Shah to demand that military spending be slashed. As a result of a decline in oil sales in the first half of 1976—owing to falling world demand—the government opted for a policy of large-scale foreign borrowing, amounting to between \$1.5 and 2 billion in the Euromarket.

According to London financial circles the new record

budget of \$49 billion for Iranian fiscal year March 1977 to March 1978—a budget over twice that of fiscal 1976-77—carries with it prospects for the government borrowing up to \$6 billion this year, and placing Iran in a net deficit spending position. Ironically, such a large scale development plan will continue to be accompanied by a domestic austerity drive.

A number of crucial factors are involved in explaining why Iran, with a total oil income of \$60 billion since the 1974 price rise, should be experiencing such a sudden economic downturn. Following the quadrupling of oil revenues between 1973 and 1974, the Shah indulged in a shortsighted spending spree, for both Iran's development and imports as well as for an unwieldy arsenal, to date having cost Iran \$15 billion from the U.S. alone! Within a short period Iran began to suffer the economic side effects of the Shah's having overextended government expenditures. Iran's still largely underdeveloped infrastructure was not equipped to accommodate the spate of poorly planned new development projects, the most flagrant manifestation of which was the clogged Iranian port situation, where merchant ships last year were experiencing turnaround times of from 5 months to a year, and which cost the Iranian government \$1 million a day in wasted cargo and waiting fees to the suppliers. The government has in part successfully alleviated this notorious port congestion. But even more serious are the effects the Shah's chaotic development schemes have