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The Impact of the Oil Crisis on the United Kingdom 14 pages

Richard M. Westebbe

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Introduction

The nationalization of the Suez Canal in late July 1956 and the British-French invasion in November closed the major arteries through which oil normally flowed to Western Europe and the United Kingdom. Despite widespread fears of the dire effects of oil shortages on a fully employed industrial economy, the economic consequences of the Suez crisis have, in the main, been negligible for the United Kingdom. This performance was the more remarkable since deliveries of oil from the Western Hemisphere during most of the period failed to meet planned amounts.

The United Kingdom's industrial production was affected very little during the four winter months following the closing of the Suez Canal. A national scheme for allocating oil proved to be surprisingly flexible and coupled with the fortunate turn in the weather made possible a 90 per cent of normal fuel oil ration to British industry throughout the crisis. A fairly severe gasoline rationing affected output in the automobile industry but even here the main effect was to increase short-time work rather than increased unemployment. Unemployment from all causes rose only from 1.2 per cent of the labor force in October 1956 to 1.8 per cent in February 1957. In short, it appears that the oil crisis at no time exercised a dominant influence on the course of economic activity in Great Britain. Rather, the underlying trend of a leveling off of the boom in response to restrictive fiscal and monetary measures continued to be the salient development in the British economy.

Effects of the Suez crisis on output in the U.K.

Industrial production in the United Kingdom had reached a plateau and was fairly well stabilized before the Suez crisis broke out. The crisis appears to have had little effect on industrial output despite the introduction of oil rationing and a world wide dislocation of shipping. Industrial output was, in fact, somewhat stronger after the crisis than immediately before, although the fourth quarter of 1956 was 136.7 compared with 139.7 in the fourth quarter of 1955. In March 1955, the seasonally adjusted index of industrial production was 136, and the provisional figure for February 1957 was about the same -- 136-137. The following table illustrates the development of industrial output in the last 7 months.

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Table 1

Seasonally Adjusted Index of Industrial Output

(Average 1948 equals 100)

<u>1956</u>		<u>1956</u>		<u>1957</u>	
July	137	October	136	January	136
August	135	November*	138	February	136-137
September	<u>137</u>	December	<u>136</u>		
	136.3		136.7		

\* Suez crisis — November 1.

In the course of 1956, the United Kingdom experienced some leveling off in economic activity but there is strong reason for believing that the impact of the oil shortage was not severe enough to exercise any noticeable influence on the underlying trend in the British economy. However, despite the stability of the index of industrial production, there has been a reduction in both domestic output and the consumption of consumer durable goods. There was also some shift in the use of resources from these industries to that of the export and capital goods industries. The output and consumption of consumer nondurables, however, has remained at high levels. There have been increasing signs that the credit squeeze is affecting the planning decisions of some industries. Factory building approvals are down, and domestic capital equipment orders for future delivery have declined, which indicates that industrial investment in 1957 probably will be no higher than 1956. 1/

In general, the United Kingdom is dependent on oil to only a limited extent. In 1955, for example, oil supplied 14 per cent of Britain's total energy needs compared with 20 per cent for France, 44 per cent for Sweden, and 37 per cent for Denmark. At the start of the crisis on November 1, 1956, Britain's oil stocks were sufficient for 6 to 8 weeks normal consumption, which helped greatly to cushion the effects of the dislocation of normal supplies. The following table shows the consumption of oil by various industries during 1955.

1/ A Board of Trade survey made in September 1956 indicated that planned industrial investment in 1957 would exceed planned 1956 levels by only one per cent. "Investment in 1957," The Financial Times, December 28, 1956, p. 6.

Table 2

United Kingdom: Consumption of Oil in 1955

(In thousands of metric tons)

	<u>Private</u> <u>motoring</u>	<u>Other</u> <u>transport</u>	<u>Agri-</u> <u>culture</u>	<u>Domestic</u>	<u>Industry</u>	<u>Refiner-</u> <u>ies</u>	<u>All</u> <u>uses</u>
Aviation gas	---	1,158	---	---	---	---	1,158
Motor spirit	3,048	2,845	254	---	193	---	6,340
Kerosene	---	567	693	567	73	---	1,970
Derv (form of diesel oil)	---	1,585	---	---	22	---	1,627
Other gas/diesel	---	56	272	53	1,663	---	2,195
Fuel oil	---	<u>553</u>	<u>27</u>	<u>9</u>	<u>4,881</u>	<u>2,093</u>	<u>7,563</u>
All uses	3,048	6,764	1,246	629	6,832	2,093	20,853

Source: "Britain's Oil Needs," The Financial Times, November 8, 1956, p. 6.

Motor vehicle use

In mid-December 1956, private motorists in the U.K. received a 25 per cent cut in their normal consumption of gasoline. In commercial transport, trucking was restricted by 25 per cent <sup>1/</sup> of normal consumption and passenger transport by 10 per cent of normal. Trucking is an important element in Britain's transport network, carrying normally about 1/2 of its freight. It is also of particular importance to industry as a whole, which pays 4/5 of its transport bill to truckers. The rationing scheme counted on a diversion of traffic to railroads

<sup>1/</sup> "Road Transport in Industry," The Financial Times, November 24, 1956, p. 4. Truckers were initially cut by 50 per cent and permitted to apply for supplementary rations of up to 25 per cent or more. Diesel freight trucks were cut to a third of normal consumption with 40 per cent more held as a supply reserve.

which had spare capacity of 20 per cent on main trunk lines. In January, freight traffic on railways was 3 per cent higher than normal and in February between 5 and 10 per cent more. While the diversion of traffic to rail has been slow, most of the difficulties connected with gasoline and diesel oil rationing have been overcome, although higher rates on rail freight have eaten into the profit margins of shippers. 1/

Industry and agriculture

Manufacturing industries, including oil refining, are the largest consumers of oil products, mainly fuel oil, in the United Kingdom, however, consumption of oil accounts for only 10 per cent of all fuel used in industry. Largely, through economies in the use of fuel oil such as in ships' bunkers and by drawing on stocks, the cut in fuel oil to industry was maintained at 10 per cent of normal use. The following table indicates the use of oil in industry.

Table 3

British Use of Oil in Industry

(In thousands of tons)

	<u>Gas/diesel oil</u>	<u>Fuel oil</u>
Steel	65	1,504
Metallurgical furnaces	55	302
Other industrial furnaces	71	196
Steam raising (inc. elec. generation)	76	1,400
Gas manufacture	503	33
Glass	28	212
Petroleum industry (excl. refineries)	18	147
Refineries	--	2,060

Source: "Britain's Oil Needs," The Financial Times, November 8, 1956, p. 6.

1/ "Limited Windfall," The Economist, March 16, 1957, p. 934.  
 "Rationing and Transport," The Financial Times, February 11, 1957, p. 4.

Steel manufacturing is highly dependent on petroleum since about a third of British finished steel is produced from oil-fired furnaces. It was initially thought that, in the short run, there was little possibility of converting much of oil-fired capacity to coal fired. <sup>1/</sup> Nevertheless, sufficient alternatives were found, together with existing stocks, to raise February steel production to a record level -- some 3.4 per cent above February 1956 levels. <sup>2/</sup> On January 30, 1957, the Minister of Power announced that the iron and steel industry had effected a 15 per cent saving in the use of fuel oil.

The gas and electricity service industries were apparently also able to effect substantial savings in the use of fuel oil. The Central Electricity Authority alone reduced its consumption of fuel oil by 80 per cent. The ample supplies of coal, coupled with the fact that the conversion to oil is of recent date, probably explains much of this performance.

The automobile industry was the most severely affected by the Suez crisis and the subsequent rationing of gasoline. Instalment credit controls, foreign import restrictions, and shipping shortages had cut car and truck output in October to more than 30 per cent below a year earlier. By December, car output had dropped 40 per cent below the level of the earlier year. The relaxation in late December of down-payment requirements from 50 to 20 per cent was mainly responsible for a revival in demand, assisted by orders from abroad, and the prospect for an early end to rationing. The weekly rate of production was reported to be rising through January and early February. <sup>3/</sup>

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<sup>1/</sup> "Britain's Oil Needs," The Financial Times, op. cit. "Oil is Critical," The Economist, November 10, 1956, p. 526.

<sup>2/</sup> "Steel Output Peak," The Financial Times, March 14, 1957, p. 1. "No Cuts in Fuel Oil Before April," The Financial Times, January 30, 1957, p. 1.

<sup>3/</sup> "Big Drop in October Car Output," The Financial Times, October 21, 1956, p. 7. "Healthier Trends in Car Industry," The Financial Times, February 23, 1957, p. 1. Sales of new passenger cars rose by 70 per cent from December to January, while commercial vehicle sales went up by 60 per cent. The numbers on short time in car manufacturing fell from 60,000 in early January to 35,000 by mid-February. February car output was 14.5 per cent above that of January.

The refineries themselves are the largest industrial users of fuel oil with their consumption being proportionate to output. It was reported that a change in the processing techniques would increase the output of fuel oil, as well as gas and diesel oil by 5 per cent but this would be at the expense of less important gasoline, while wastage would also reputedly be cut in half in this event. 1/

Agriculture, which depends very heavily on liquid fuels was at first not subject to any rationing at all, but as of January 1, oil for this sector was cut by 10 per cent and finally all restrictions were removed on April 1.

### The present status of controls

With higher than expected imports, more optimistic announcements have recently emanated from official quarters in Great Britain as to the future state of oil supplies and the relaxations of rationing. It is now expected that the supplies to motorists will be increased by 50 per cent on April 17. Gas/diesel oil rationing will be eliminated on this same date and the extra duties on gas/diesel oil and gasoline will be removed within a month of the end of rationing. Fuel oil restrictions on space and water heating will be reduced from 25 to 10 per cent of normal, but the 10 per cent cut in fuel oil to industry will continue in effect. The removal of restrictions on derv (gas/diesel oil) was called a "calculated risk" in view of the fact that arrivals are now only just normal and stocks will have to be rebuilt before next winter. The necessity of employing available shipping for building stocks of fuel oil will serve to delay the early complete removal of all restrictions on the use of gasoline or fuel oil. 2/

### Employment effects of the petroleum shortage

There were widespread fears that the closing of the Canal would have substantial unemployment effects. Unofficially, Union leaders at the Trade Unions Congress in September 1956 estimated

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1/ "Maintaining Oil Supplies," The Financial Times, November 2, 1956, p. 6.

2/ "More Petrol at Higher Prices," The Financial Times, March 19, 1957, p. 1. "Freeing Derv a Calculated Risk," The Financial Times, March 19, 1957, p. 6. The OEEC now expects arrivals of oil in Europe from all sources to average 85 per cent of normal in the first quarter of 1957 and 100 per cent of normal in the second quarter, assuming the pipelines through Syria produce at 44 per cent of normal. "More Oil," The Financial Times, March 19, 1957, p. 6.

1 million unemployed if the Canal were closed. 1/ This would have represented nearly 5 per cent of the labor force in Britain, which totaled 23 million persons in August 1956.

During the past winter, however, the employment effects of the oil shortage were limited. On January 14, 1957, unemployment was estimated at 383,600 workers or 1.8 per cent of the labor force. This compares with about 1.2 per cent unemployed in August 1956. It is estimated that only 16,750 workers had been discharged because of the oil crisis. The main impact of the oil shortage was to put many full-time workers on a short-time basis. In the first week in February 1957, about 110,000 workers were working on a part-time basis; 56,000 of these were attributable to the fuel shortage. About 46,000 workers were found in the motor car and related industries, 3,000 were in road transport and the remaining 7,000 were scattered among all other industries short of fuel. 2/

The manufacture and repair of private and commercial vehicles employs normally some 600,000 workers. 3/ As indicated previously, the manufacture of automobiles and automotive equipment was the industry hardest hit by the oil shortage. The industry's labor force was vulnerable to a sharp fall in demand. However, at the peak of the crisis in January, short-time workers totaled only 57,500 in the auto and related industries, and the number fell to 46,000 in early February.

Cutbacks in output in the United Kingdom as a result of the Suez crisis eliminated overtime work and resulted in a shorter work week. However, less than 5 per cent of those registered as unemployed in February could be attributed to the Suez crisis. The temporary nature of the oil shortage, coupled with the high levels of economic activity in the U.K., may have made employers reluctant

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1/ "Unions Fear Redundancies From Suez Blocking," The Financial Times, November 20, 1956, p. 7.

2/ "Unemployment Up Last Month," The Financial Times, February 13, 1957, p. 1. In early January 70,000 of 130,000 short-time workers were attributable to the fuel shortage while 11,000 were unemployed for the same reason. "130,000 on Short Time," The Financial Times, January 17, 1957, p. 7.

3/ There are also some 35,000 gas stations in the U.K. employing 70,000 workers. About 20,000 of these installations do repairs and sell automobiles as well. There were reports of layoffs in garages, taxi companies and commercial trucking (employing 225,000). "Garage Redundancy After Fuel Cuts," The Financial Times, November 23, 1956, p. 7.

to lay off parts of their labor force. By March 1, there were only 34,000 in all industries out of a total 115,000 part-time workers in the country on short time as a result of the oil shortage. 1/

### Energy and national income

The present oil crisis may prove to have far more serious implications for Britain's long-run economic growth than it has had on activity in the short run. The United Kingdom is deficient in virtually all fuels, being entirely dependent on foreign sources for its oil and it even imports some types of coal. 2/ However, coal remains the major source of energy in Great Britain. Because coal output has failed to keep up with Britain's economic growth over the past 30 years, domestic coal availabilities can be expected normally to take up little of a fuel shortage caused by the interruption of oil supplies. In 1955, coal consumption amounted to 215 million tons compared with 20.6 million tons of oil with a thermal value of 34 million tons of coal. 3/

Table 5 indicates that the output of coal has not kept pace with the growth of population in the last 30 years and the difference has been made up by increasing dependence on imported oil (see Table 6).

The possibilities of substituting other fuels for oil is limited by technological considerations in most industries. In any case, large scale substitution is impractical since Britain is a net importer of virtually all fuels, and increasing the demand for one at the expense of another merely shifts the burden of the shortage and does not eliminate it.

Little help can normally be expected from other European nations. In 1955, the six coal and steel community countries produced 246 million tons of coal or some 16.2 million tons less than they consumed. The differences came from imports and stocks. 4/

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1/ "Little Change in Employment," The Financial Times, March 8, 1957, p. 7.

2/ In 1955, the United Kingdom imported 11.3 million tons of coal but exported 14.3 million tons.

3/ "Britain's Fuel Problem," The Financial Times, October 2, 1956, Section I. Fortunately, during the present crisis, consumption of coal was down because of mild weather, while production and stocks were abnormally high.

4/ "Britain Warned of New Fuel Cut," The New York Times, November 17, 1956, Sec. C, p. 3.

Table 4

U.K. Annual Production and Inland Use of Coal

<u>Year</u>	<u>Production</u> (In millions of tons)	<u>Inland use</u> (In millions of tons)	<u>Population</u> (In millions)
1853-1862	70	64	22
1903-1912	254	178	39
1923-1932	233	167	45
1943-1952	*205	193	49
1953	*224	209	50
1954	*224	214	51
1955	*222	215	51

Table 5

U.K. Use of Petroleum Oils as Fuels

(In millions of tons)

<u>Year</u>	<u>Imports</u>	<u>Inland use</u> (as fuels)
1920	3.4	1.8
1930	8.9	4.6
1938	11.7	7.6
1948	17.9	11.4
1950	19.2	13.4
1952	28.8	15.4
1954	34.8	18.5
1955	36.6	20.6

\* Including 10 million tons of opencast coal.

Source: "Britain's Fuel Problem," The Financial Times, October 2, 1956, Sec. I.

This year, the consumption of black oils in the U.K. was expected to rise some 20 per cent. <sup>1/</sup> To maintain, let alone increase, the standard of living over the next ten years coal output will have to rise by 19 million tons and imports of oil and possibly nuclear power stations will save the equivalent of 16-20 million tons of coal or 10 to 13 million tons of oil annually by 1965. <sup>2/</sup> In the long run, a higher economic cost for oil coupled with reduced quantities could only be borne at the expense of foregoing part of future industrial growth.

Alternative solutions, such as the use of super tankers, are not without drawbacks. In the first place, it will take a number of years to construct any quantity of these vessels in view of the existing full employment of shipyards. Secondly, they would require large quantities of scarce resources such as steel for their construction and would drain limited investment capital. Lastly, port and refinery facilities are not equipped to handle such vessels on any large scale and their use will therefore necessitate a significant expansion of port facilities.

The relation between energy and income is a complicated one and can be discussed only in the most general terms. The following table gives some comparison between various countries of energy input and the corresponding income per capita. It is clear, however, that energy and income are correlated, although the relationship may not always be direct.

Belgium, for example, has a higher energy per capita intake than France but a lower per capita income. In general, productivity may be said to determine income but energy intake tends to reflect productivity. On the basis of 1955 figures, the U.K. consumed some 250 million tons of oil and coal equivalents. If, at the maximum, a 20 per cent cut is assumed in oil consumption since November this would amount to an effective 7 million tons or 2.8 per cent of total energy intake. In view of economies in consumption and substitution of other fuels in critical areas and the maintenance of production and employment at high levels, it is unlikely that such a cut in energy intake has, in fact, been matched by a corresponding cut in national income. On the other hand, the growth potential which might have been realized during this period of oil rationing has also not taken place. More importantly, the future growth of national income could well be retarded if investors become uncertain about the free availability of oil supplies, with substitutes obtainable only at great capital cost and even then only in limited amounts.

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<sup>1/</sup> "Industry's Bid to Maintain Output," The Financial Times, November 14, 1956, p. 1.

<sup>2/</sup> "New U.K. Atom Programme," The Financial Times, January 15, 1957, p. 1.

Table 6

Population, National Income, and Fuel and Power Consumption  
for Selected Countries in 1954

Country	Population (millions)	Population density (per sq. mile)	National income (equivalent in £1,000 m. per annum)	Income per capita (equivalent in £ per annum)	Fuel and power consumption (coal equivalent per capita in tons per annum)
U.S.A.	162	54	107.0	659	8.0
Canada	15	4	6.9	453	7.0
U.K.	51	542	15.9	311	4.8
France	43	202	11.7	273	2.6
Belgium	9	746	2.4	268	4.0
Netherlands	11	848	2.0	187	2.4
Japan	88	616	6.1	69	1.0
India	377	320	8.0	21	0.3

Source: "Britain's Fuel Problem," The Financial Times, October 2, 1956, Sec. I.

The balance of payments

During the second half of 1956, the foreign-exchange costs of the Suez crisis were heavy but these losses were mainly associated with adverse capital flows, particularly the withdrawal of foreign funds from London, and shifts in the timing of commercial payments. Between August and November 1956, official reserves fell by \$192 million, and the actual payments deficit (excluding special receipts and aid) amounted to \$403 million. In his speech of December 4, Chancellor MacMillan ascribed these losses to: "the events of the last four months and the international tension they have caused," because ". . . sterling is particularly affected by movements in world confidence . . . ." International measures taken in December brought these speculative pressures against the pound to an end.

Oil -- There were substantial direct costs of the oil crisis on the balance of payments. In a rough estimate of the external cost of Suez developments for the twelve months ending June 1957, British authorities expect that the payments surplus of £300-£350 million on current account previously estimated would be reduced to a small margin, mainly as a result of large imports of higher priced dollar oil instead of sterling oil from the Middle East. 1/

Newspaper estimates place the additional costs of oil to the U.K. at about £30 million a quarter and, with the exception of freight costs, it was estimated to be largely a dollar cost. 2/ These estimates allow for the substitution of Western Hemisphere for Middle East oil and for reduced British earnings from sales to Western Europe. Of course, the replacement of Middle Eastern with Western Hemisphere oil did not necessarily involve a dollar cost to the full extent of the replacement. Formerly, oil from the Middle East contained a dollar component of about 30 per cent: in addition, the de facto convertibility of transferable sterling meant that there was a dollar drain even for so-called sterling oil.

Trade account -- With the closing of the Canal, freight costs rose for Britain's (and Europe's) exports and imports. The higher freight costs raised Britain's import bill and reduced her competitive position, especially in the Far East. This movement contributed to a deterioration in Britain's terms of trade. Between August 1956 and February 1957, the U.K.'s import price index rose from 103 to 111 (1954 equals 100) and export prices rose from 106 to 110. This deterioration largely reflected higher costs for oil, which rose from 115 to 143 (1954 equals 100) between November 1956 and February 1957.

In spite of these adverse factors, the underlying trend of rising exports and stable imports, observable well before the crisis, continued thereafter. In the four post-Suez months, the average monthly value of exports plus re-exports was £283.2 million as compared with £266.7 a year earlier. Imports were £330.3 million for both periods and the trade gap was down markedly from £63.7 million to £47.1 million.

Shipping account -- As a major ship-owning nation, the United Kingdom might have been expected to benefit from increased shipping earnings. However, Britain is a net importer of tramp shipping and an exporter of tankers and cargo liners; since tramp

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1/ Bulletin for Industry, January-February 1957.

2/ "Oil for Europe," The Economist, November 17, 1956, p. 618.

costs have risen much more sharply than conference rates on tankers and liners, some net reduction of earnings probably occurred. From 1953 to 1955, for example, Britain's net earnings from shipping fell by 29 per cent even though freight rates rose by 65 per cent. 1/

Interest, profits and dividends -- In the first six months of 1956, the U.K. earned £45 million from interest, profits and dividends of which £37 million was from the sterling area. British company profits in Iraq and Kuwait have been estimated at over £85 million in 1955. With a general 40 per cent reduction expected in Middle East output, and given the fact that costs will not fall proportionately to output, the loss in profits in one year could well reach an estimated £60 million. 2/

### Concluding observations

As of early April 1957, the United Kingdom had adjusted to the economic impacts of Suez developments without great difficulty. The economy has been operating on oil availabilities in the neighborhood of 80 per cent of normal with only a limited impact on industrial production or employment. It has maintained this rate of consumption by drawing on stocks, through economies in use and by the substitution of other fuels, and has been helped considerably by an unusually mild winter. If the industrial output had been limited to the level of oil arrivals, domestic production might well have been much more seriously disturbed.

On balance, the oil shortage did not introduce either strong deflationary or strong inflationary influences into the British economy. There had been unmistakable evidence of a leveling off of Britain's boom before the Canal was seized. Monetary and fiscal restraints had, for the most part, brought under control the rapid expansion in business spending on plant and equipment and had materially cut back demands for autos and other consumer durables. The petrol shortage enforced a further reduction of consumer demand for cars, and in fact, reductions in demand were so great that the authorities on December 21 eased down-payment requirements from 50 to 20 per cent as a measure of temporary relief to the industry.

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1/ "Cost of Higher Shipping Freights," The Financial Times, November 1, 1956, p. 6.

2/ "First Reckoning for Suez," The Economist, November 17, 1956, p. 51.

With some outside financial assistance, the U.K. has been able to meet the external costs of Suez without recourse to import restrictions. The U.K. drew on its IMF quota of \$1,300 million to the extent of \$561 million and received a standby credit for the rest. The Governments of the United States and Canada were asked to waive interest in the amount of some \$104 million due on past war loans. Recently the U.K. and the U.S. have agreed to postpone the interest on these loans this year and on 7 further annual instalments of interest and principal at the option of the United Kingdom. Canada is expected to agree to the same terms. Finally, the U.K. obtained an Export-Import Bank credit of \$500 million to finance U.K. purchases of oil in the U.S. With these resources at its command, the fear of a devaluation was largely overcome and the drain on reserves was stopped.

The enduring costs of the Suez crisis are likely to become apparent only over an extended period of time. Because recently much of the marginal increases in energy input of British industry have been in the form of fuel oil, the recent investment boom has seen a disproportionate rise in the reliance on oil. Uncertainties about oil supplies may tend to retard further expansion in many industries, particularly in the case of smaller independent firms. On the other hand, the oil shortage has demonstrated that the British economy has considerable flexibility in maintaining high level activity despite an abrupt shortage of an essential energy input.