Economic Consequences of the Iraq-Iran War
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Economic consequences of the Iraq–Iran war*

The Iraq–Iran war which has been going on for nearly six years will perhaps go down in history as one of the costliest conflicts in this century. It is estimated that the first five years of the fighting may have resulted in a toll of war dead approaching one million.[1] The economic cost of the conflict which may have already exceeded $500 billion is also staggering in terms of its impact on and implications for the economies of the two nations.

Following a brief survey of economic conditions prior to the war in both countries, this essay will attempt to deal with three separate but interrelated issues: first, the effects of the war on the Iraqi and Iranian economies, second, the impact of the war on, and the role of Saudi Arabia in, the changing relative positions of Iraq, Iran and Saudi Arabia itself in the international oil market and third, an assessment of the prospects for economic development in the post-war period.

Economic conditions before the war

Iran

In Iran the period between 1973 (the year of the oil price revolution) and 1977 (the last full year prior to the events of the Iranian Revolution) was marked by an accelerated level of public spending which was made possible by the sharp increase in oil revenue. Development spending however was both mismanaged and disorganised giving rise to a number of serious structural problems including a high level of inflation, accentuated maldistribution of income, high levels of imports of both military and non-military goods, concentration of civilian spending

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[1] The literature on the causes of the war and the historical developments which led to it is voluminous. For a detailed treatment of relations between Iraq and Iran see J M Abdulghani, *Iraq and Iran: The Years of Crisis*, Baltimore: Johns Hopkins University Press, 1985, especially ch. 8. See also Phebe Marr, *The Modern History of Iraq*, Boulder: Westview Press, 1985, ch. 10. For a comprehensive analysis of the war, see Robert C Johansen and Michael G Renner, 'Limiting conflict in the Gulf', *Third World Quarterly* 7(4) October 1985, pp 803–38. For casualty figures, see *The New York Times*, 23 September 1985.

in urban centres especially the capital city of Tehran, and the concentration of economic power and benefits in the hands of a few families. The consumer price index rose from 6.5 per cent per annum in 1972 to 11.3 per cent in 1976 and resulted in the deterioration in the real income and living standards of those who depended for their livelihood on wages and salaries as such earnings failed to keep up with rising inflation. In order to stem the impact of inflation and to attempt to stabilise the economy the government decided in 1977 to create a recession by reducing public spending. The effects of this policy were exacerbated by the general economic stagnation in industrialised countries. The combination of these changes succeeded in reversing an average growth rate of gross domestic product (GDP) of 11 per cent per year for the period 1966–75 to a 2.1 per cent decline in 1977 to be followed by another decline of 5.3 per cent in 1978. This drastic decline in GDP failed, however, to control inflation which increased at an annual rate of 27.3 per cent in 1977 and another 11.6 per cent in 1978.[2] The economic recession and inflation succeeded however, in accelerating the pace of the political upheaval which was beginning to engulf Iran in 1977 and which continued into 1978. It was obvious by the second half of 1978 that the days of the monarchy were numbered. This was underscored by the national strike, industrial unrest, the oil workers' strike, and the general civil disobedience movement. It was in those months when the Shah attempted to salvage his regime by changing cabinets and prime ministers.[3]

The departure of the Shah, the collapse of his armed forces and the demise of the last Shah-appointed government of Shahpur Bakhtiar paved the way for the first cabinet in the newly established Islamic Republic of Iran headed by Prime Minister Mehdi Bazargan. Needless to say, the new regime hoped for a rapid economic recovery. But the damage which the economy suffered toward the end of the Shah's regime and the inevitable economic dislocation and disorganisation which characterise any revolutionary period made the hoped-for economic recovery an unrealistic goal. Among the many reasons for the failure of the recovery one must include the withdrawal of large

[2] International Monetary Fund, *International Financial Statistics: Supplement on Output Statistics*, Washington DC, 1984, pp 14–15.

[3] For a review of the events which preceded the establishment of the new republic in Iran see Dilip Hiro, *Iran Under The Ayatollahs*, London: Routledge and Kegan Paul, 1985, ch. 1, especially pp 66–100. For a good summary of current economic developments in Iran, see The Economist Intelligence Unit, *Quarterly Economic Review of Iran* (*QER-Iran*).

numbers of foreign skilled workers, the flight of capital, the decision of the new government to reduce the oil output by one-third and the emigration of cadres of Iranian managers, technocrats, administrators and other skilled workers. It should also be noted that the first year of the new Republic saw a wave of rural and ethnic unrest which diverted attention and energy away from the immediate problems of the economy. Iran's GDP continued its downward trend in 1979 when it declined by 6.4 per cent while inflation continued its upward trend as it rose by 10.5 per cent in the same year.

One of the most serious developments in 1979 was the hostage crisis which had significant implications for the economy. The freezing of Iranian assets in the United States and with foreign-based US banks meant the removal of some $9 billion out of a total of $15 billion of assets from Iranian control.[4] In addition to freezing Iran's assets the Carter Administration succeeded in enlisting the support of other industrial countries in imposing economic sanctions against Iran. These sanctions together with the fighting which erupted in Khuzestan in the South, and Baluchistan in the West, the continued fighting in Kurdestan and the outbreak of war with Iraq contributed to the economic decline which characterised 1980.

In spite of this gloomy picture there were some healthy economic signs. These included the fact that Iran's external financial position was good, it was able to service its foreign debts, its industry was beginning to revive and oil output was moving upward. But these positive elements were not sufficient to offset the forces responsible for economic deterioration. The contest between the secular and religious wings of the Iranian Revolution to shape the post-Shah economy and society was fierce enough to slow down economic recovery in the first year of the Revolution.[5]

Although the government of President Abol-Hassan Bani-Sadr attempted to challenge the position of the clerical groups and to introduce some reforms in the economy, the opposition to Bani-Sadr proved too strong and too entrenched to overcome.

[4] *Ibid.*, No. 2, 1980, p 13.

[5] In 1979 the Revolutionary Committee for Economic Policy published a nine-point programme to guide the economy in revolutionary Iran. The programme stressed godliness over prosperity; minimum output of oil; involvement of religious education as a vital part of development; self-sufficiency in agriculture and industry; adjustment of development strategy to match spiritual needs and that all citizens should have equal claims on financial resources. See *QER-Iran* (4) 1979, p 12. See also Asaf Hussain, *Islamic Iran: Revolution and Counter-Revolution*, New York: St Martin's Press, 1985, pp 150–64.

Iraq

While the Iranian economy was experiencing revolutionary upheaval, Iraq in the years following the nationalisation of the Iraq Petroleum Company in 1972 and the 1973 oil explosion was busy trying to develop its infrastructure, its oil sector and its goods producing sectors and was also attempting to modernise its military. The 1975 Algiers accords with the Shah allowed Iraq to pursue its economic development plans unhindered by the cost of attempting to put down the Kurdish rebellion. And by 1979 Iraq displaced Iran as the second largest OPEC oil producer/exporter after Saudi Arabia.

The Iranian Revolution prompted Iraq to pause and re-examine its public spending pattern and priorities after having reached the conclusion in 1979 that a conflict with Iran might prove to be unavoidable. This in turn led the government to increase spending on defence and security needs.

Although the government continued to expand defence spending in 1980, it also made another major decision—to raise development spending and rapidly to increase imports of consumer goods. Thus, between 1978 and 1979 the value of imports went up from \$4.2 billion to \$9.9 billion or by 136 per cent. These imports rose again to \$13.8 billion in 1980, or by another 39 per cent. They further climbed in 1981 to \$20.5 billion or by yet another 51 per cent. That is, Iraq's imports between 1978 and 1981 increased from \$4.2 billion to \$20.5 billion, or by close to 400 per cent.

One of the most interesting aspects of this phenomenal growth in imports was the relative increase in the share of non-military goods (Table 3). While the value of military imports rose from \$1.6 billion in 1978 to \$3.7 billion in 1981, an increase of 131 per cent, non-military imports climbed from \$2.6 billion in 1978 to \$16.8 billion in 1981, an increase of 546 per cent. Thus, the ratio of non-military goods to total imports increased from 62 per cent to 82 per cent during this period. It was suggested that this exceptional rise in non-military imports was a deliberate policy intended to cushion the impact of the war on living standards by making consumer goods available in large quantities. Iraq was pursuing a policy of guns and of butter at the same time.[6] But such a

[6] For an analysis of Iraq's spending policies during the early phase of the war, see John Townsend, 'Economic and political implications of the war: the economic consequences for the participants', in M S El Azhary (ed), *Iran–Iraq War: An Historical, Economic and Political Analysis*, New York: St Martin's Press, 1984, pp 51–65.

policy could not be maintained for long and it had to be revised in 1981 under the impact of the war.

The economic effects of the war

The Gulf War is not different from other wars in terms of its cost to the combatants. In addition to the human cost there are also economic costs in the form of the destruction of assets and infrastructure, domestic inflation, inflated prices of imports, lost output due to the mobilisation of the labour force away from the civilian sector in favour of the military economy, lost oil revenue and the general economic deterioration associated with the war. In the following paragraphs the focus will be on the economic losses which were sustained by both countries in the early phases. This will be followed by an analysis of the effects of the war on each country separately.

Oil: the first economic casualty

One of the early and most visible economic casualties of the war was the mutual destruction by Iran and Iraq of the most important and the most necessary sector of each other's economies—the oil sector. Within days of the outbreak of the war both countries succeeded in putting each other's oil-exporting capabilities out of operation including loading facilities, pumping stations, refineries, terminals and pipelines. The extent of the damage is reflected in the fact that both countries were reduced to a small fraction of their pre-war output. In the case of Iraq, its output declined from 3.4 million barrels per day (b/d) in August to a mere 140,000 b/d in October. Iran's output declined from 1.3 million b/d to 450,000 b/d during the same period.[7]

The loss of oil exporting capacity in both countries was by far the most devastating economic blow of the war. This is so because oil had become since 1973, and more so after the 1979–80 price increases, the most important sector of the economy in terms of its contribution to GNP and as the main source of foreign exchange. In Iraq oil revenues had peaked in 1980 to $26.1 billion and constituted 66 per cent of GNP. In the case of Iran oil revenues peaked in 1979 at $20.5 billion or 29 per cent of GNP but declined in 1980 to $13.5 billion or 18 per cent of GNP. And in both

[7] For a detailed account of the impact of the war on the operations of the oil sector in both countries, see Thomas R Stauffer, 'Economic warfare in the Gulf', *American–Arab Affairs* (14) Fall 1985, pp 98–116.

countries oil sales were almost the sole source of foreign exchange earnings. Therefore, the war-caused reduction in oil revenue had a significant impact on the entire economy. Thus in 1981 Iraq's oil revenue which was cut to $10.4 billion or by 60 per cent caused a decline of 24 per cent in GNP, from $39.7 billion to $30.1 billion. In Iraq, however, since the war-related loss in oil revenue was only $4.2 billion or 31 per cent of the 1980 level and since the contribution of the oil sector to the Iranian economy is much smaller than that of Iraq, the impact of the loss in revenue on the GNP was much less severe (Table 1).

In addition to the immediate loss of oil income there were other economic costs which were incurred by the two countries because of the war. One such loss was the forced re-routing of imports to alternative and more costly routes. Iraq for instance, due to the closure of its ports had to find new overland routes through Kuwait, Jordan and Turkey. Similarly Iran found it necessary to divert some of its trade from its ports on the Gulf to routes going through the Soviet Union and Turkey. Such re-routing had the effect of raising the delivered prices of foreign goods due to higher transportation costs.

Moreover, the diversion of resources to meet the needs of the war

Table 1: Iran and Iraq: Gross National Product and oil revenues, 1977–84
($ billion)

Year	IRAN			IRAQ		
	GNP	Oil Revenue	Ratio Per cent	GNP	Oil Revenue	Ratio Per cent
1977	79.4	21.2	26.7	18.4	9.6	52.2
1978	76.1	19.3	25.4	22.7	10.2	44.9
1979	70.8	20.5	29.0	35.8	21.3	59.5
1980	74.5	13.5	17.9	40.2	26.1	64.9
1981	77.5	9.3	12.0	30.4	10.4	34.2
1982	85.4	15.9	18.6	31.1	9.7	31.1
1983	99.8	18.7	18.7	32.2	8.4	26.1
1984	115.0	16.7	14.5	34.3	10.4	30.3

Sources: For the years 1977–83, oil revenue data from OPEC *Annual Statistical Bulletin*, Vienna; 1984 oil revenue from *Petroleum Economist*, July 1985; GNP data 1977–84 from OPEC, *Annual Statistical Bulletin*, Arab Monetary Fund, *Arab States' National Accounts*, *1972–83* (Arabic) Abu Dhabi, 1984 and International Monetary Fund, *International Financial Statistics Yearbook, 1985*, Washington DC 1985 and OPEC Fund for International Development, *OPEC Aid and OPEC Institutions—A Profile*, Vienna, 1985. Minor adjustments were madè to reconcile data from different sources.

forced both countries to increase their dependence on foreign suppliers. Another effect of the war was the rapid decline in foreign reserves which forced the two countries (especially Iraq) to resort to foreign borrowing.

The war and the Iraqi economy

When the war broke out Iraq found itself, as was indicated earlier, in the enviable position of being able to increase defence spending and development spending as well as expand its imports of non-military goods. Iraq, unlike Iran, suffered neither from domestic political dissension nor from diplomatic isolation or economic sanctions. Iraq's considerable foreign reserves on the eve of the war coupled with the generous flow of financial support from other Arab countries, particularly Saudi Arabia and Kuwait, made it possible for the government to pursue the policy of 'guns and butter' alluded to earlier. The significance of such a policy may be appreciated when it is realised that the value of Iraq's contracts with foreign enterprises for non-military projects increased between 1980 and 1981 by 64 per cent, from \$14.8 billion to \$24.3 billion.[8]

Similarly, non-military imports were increased sharply during the first two years of the war, from \$11.9 billion in 1980 to \$16.8 billion in 1981 despite the \$15.7 billion loss in oil revenue which Iraq had to sustain between 1980 and 1981.

Although Iraq had financial resources and cohesive political leadership it did not have sole control over the direction of the war or the economy. And, as the war continued, the economy could no longer be insulated from the erosive effects of inflation nor could it escape the effects of the rise in import prices or the depletion of its foreign reserves or the withdrawal of foreign labour from major industrial sites. These effects were aggravated by the continued mobilisation of major segments of the labour force as the size of the armed forces increased from 140,000 persons in 1978 to 450,000 persons in 1982. The implications of the increase in the size of the armed forces deserves some elaboration. In 1978 the size of the labour force in Iraq was 2.97 million or 24 per cent of the total population of 12.41 million. Applying the same percentage to the 1982 population of 14.11 million, we get a labour force of 3.39 million. This means that the proportion of the labour force enlisted in the army increased from 4.7 per cent in 1978 to

[8] Townsend *op. cit.*, p 62.

13.3 per cent in 1982. While the domestic labour force increased by 13 per cent between 1978 and 1982, the size of the armed forces rose by 221 per cent. It should be added that as these forces increase in size so does the number of civilian workers who are employed to provide the necessary support, management and maintenance services to the armed forces. In short, the drain of standing armies on the productive capacity of the economy goes far beyond the mere size of such forces. The loss of a major segment of the domestic labour force to the military economy was more than offset by the rise in the number of women in the labour force and more importantly by importing workers from abroad, mainly Egypt. Thus, between 1978 and 1982 the size of the labour force increased by 2.7 million (from 2.97 million to 5.67 million) while the population of Iraq increased by only 1.7 million during the same period.[9] Another effect of the war on the economy was the decline in agricultural output. Given the increase in the size of the armed forces and since agriculture employs about two-fifths of the labour force it was inevitable that most of the additional recruits would be drawn from this particular sector. The effect of the war on agriculture can be seen in the decline of wheat output from an annual average of 1.8 million tons in the period 1974–6 to 965,000 tons in 1982 and to only 300,000 in 1984. Comparable data for rice were 98,000 tons, 163,000 tons and 95,000 respectively.[10] But the ability of Iraq to maintain high levels of military and civilian spending could not be supported for too long. Hence, adjustments in economic priorities and spending patterns had to be made.

The year 1982 was a major turning-point, as the war front moved to Iraqi soil. 1982 will also be remembered as the year when in April Syria decided to close Iraq's oil pipelines going through its territories, causing Iraq to lose an export outlet of 400,000 b/d valued at $5 billion per year.[11] As a result of Syria's act, Iraq was reduced to only one export outlet going through Turkey with a capacity of three-quarters of a million b/d, or about one-fourth of its export capacity just before the war. These changes forced Iraq to acknowledge that economic retrenchment was necessary and that no new projects could be undertaken in 1982 until projects under way were completed. However, the government felt

[9] See Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1985*, Washington DC, 1985, p 67, for the size of armed forces. For data on labour force, see Arab Monetary Fund, *Unified Arab Economic Report, 1983* (no date) p 209 (in Arabic).
[10] Food and Agriculture Organisation, *1984 FAO Production Yearbook*, Rome, 1985, pp 108–14.
[11] *Middle East Economic Survey* (MEES) 19 April 1982, p 2.

that it was necessary to continue transportation and construction projects provided that they served the war effort, plus certain projects in urban centres, particularly Baghdad. But as the war continued Iraq found itself once again reducing all non-defence related development spending. Investment in agriculture and industry were reduced drastically and import programmes were subjected to closer scrutiny to ensure that foreign reserves which had declined from $30 billion at the start of the war to $10 billion by the end of 1982 would be used judiciously and only when necessary. Furthermore, in 1983 Iraq decided to adopt new and more stringent economic measures. One of the more significant changes in policy was the decision by the government to rely more heavily on the private sector to promote industrial and agricultural output by providing incentives and credits. In order to shore up its sagging foreign exchange position, Iraq found it necessary to enter the international financial market in order to borrow. It also became necessary to reschedule some of its debts to foreign contractors, to use oil for imports trade arrangements, to devalue the dinar against the dollar and to increase its borrowing from the Gulf states which by the end of 1982 had reached $35 billion.[12] Iraq also decided to curtail its foreign aid to other Third World countries, to restrict foreign travel, and to cut down on imports by limiting them to essential consumer goods only. One measure of Iraq's difficult financial position is reflected in the sharp change in its share in the combined value of projects contracted by members of the Organisation of Arab Oil Exporting Countries (OAPEC). According to data compiled by OAPEC, Iraq accounted for 17 per cent of all such contracts in 1979. This ratio jumped to 30 per cent in 1980 and rose again in 1981 to 31 per cent, only to plummet to 9 per cent in 1982 and 2 per cent in 1983.[13]

By 1983 Iraq was compelled to reduce imports to $11.7 billion from $20.5 billion in 1981 or by 43 per cent (Table 2). The drastic reduction in total imports also reflected the new imperatives of the war as Iraq saw them. While total imports declined by 43 per cent, military imports increased by 38 per cent, from $3.7 billion to $5.1 billion. On the other hand, non-military imports were reduced from $16.8 billion to $6.6 billion or by 61 per cent between 1981 and 1983. This re-orientation of Iraq's imports programme resulted in a reduction of the share of

[12] *QER-Iran* (2) 1983, p 7. See also *MEES* 14 March, 4 April, 23 May, and 11 July 1983.

[13] For an outline of these measures, see Basil al-Bustany, 'Development strategy: Iraq and the war effort: dynamics of challenge', in El Azhary, *op. cit.*, pp 66–80. See also OAPEC, *Secretary-General's Annual Report*, Kuwait.

Table 2: Iran and Iraq: exports, imports and trade balance, 1977–84
($ billion)

Year	IRAN Exports	IRAN Imports	IRAN Balance	IRAQ Exports	IRAQ Imports	IRAQ Balance
1977	21.7	14.6	7.1	10.4	4.5	6.0
1978	22.4	19.5	2.9	12.0	4.2	7.8
1979	19.2	8.8	10.4	20.3	9.9	10.4
1980	15.3	12.8	2.5	28.5	13.8	14.7
1981	10.7	12.9	− 2.2	11.6	20.5	− 8.9
1982	17.2	11.2	6.0	10.6	21.6	−11.0
1983	19.5	18.2	1.3	8.9	11.7	− 2.8
1984	15.1	15.3	− .2	9.7	9.8	− .1

Source: International Monetary Fund, *Direction of Trade Statistics Yearbook*, Washington DC, 1985.

non-military imports from 82 per cent of all imports in 1981 to 56 per cent two years later.

The war and the Iranian economy

In addition to the loss of oil output and revenue, the war inflicted heavy damage on Iran's pipelines, refineries, infrastructure, industrial sites, factories and cities. Particularly severe was the destruction inflicted upon some of Iran's more populous cities such as Ahwaz, Abadan, Dezful and Khorramshahr. The bombing of these cities in the early phases of the war forced an estimated 2 million people to be relocated in other parts of the country. This internal refugee problem intensified the difficulties for an economy that was attempting to cope not only with the impact of the war but also with some of the dislocational problems of the Revolution.

The Iranian economy, however, proved to be more resilient than was expected. One of the most important reasons for this was Iran's ability to increase its oil output and exports and thus increase its oil revenue and foreign exchange earnings in a very short period of time. Thus the decline in oil revenue from $13.5 billion in 1980 to $9.3 billion in 1981 was reversed, with a sharp increase to $15.9 billion in 1982 and $18.7 billion in 1983. By contrast Iraq's oil revenue, which declined from $26.1 billion in 1980 to $10.4 billion in 1981, fell again in 1982 to $9.7 billion and to $8.4 billion in 1983. Another explanation for the resilience of the Iranian economy may be found in earlier policy decisions to reduce dependency on the oil sector and also to reduce imports in

Table 3: Iran and Iraq: military and non-military imports, 1977–83
($ billion)

Year	IRAN Total Imports	IRAN Military Imports	IRAN Ratio Per cent	IRAQ Total Imports	IRAQ Military Imports	IRAQ Ratio Per cent
1977	14.6	2.5	17.1	4.5	1.5	33.3
1978	19.5	2.2	11.3	4.2	1.6	38.1
1979	8.8	1.6	18.2	9.9	2.3	23.2
1980	12.8	.4	3.1	13.8	1.9	13.8
1981	12.9	1.0	7.8	20.5	3.7	18.0
1982	11.2	1.5	13.4	21.6	4.3	19.9
1983	18.2	.8	4.4	11.7	5.1	43.6

Source: For total imports, see Table 2; for military imports, see US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1985*, Washington DC, 1985, pp 108–9.

general and non-essential consumer goods in particular. This policy was supplemented by another policy which aimed at stimulating domestic agricultural and industrial output. In the case of agriculture, output of main cereals—wheat, rice and barley— turned out to be higher in 1982, 1983, and 1984 than during the period 1974–6.[14] Industrial output in 1982 had recovered remarkably well to show a real growth rate of 11.6 per cent over the previous year.[15] One of the most interesting changes in the Iranian economy, in contrast to that of Iraq's, was the ability of Iran steadily to increase the level of imports. Thus, total imports which amounted to $19.8 billion in 1978 declined to $8.8 billion in 1979, with military imports accounting for 18 per cent of the total. By 1983, total imports had climbed to $18.2 billion with military imports accounting for only 4.4 per cent of the total. By contrast, Iraq's imports, which reached their peak of $21.6 billion in 1982 with the military component absorbing 20 per cent of the total, declined sharply by 1983 to $11.7 billion but with military imports accounting for 44 per cent of the total (Table 3). Iran's ability to increase revenue from oil exports soon after the war was initiated, proved to be a decisive factor not only in enabling it to expand imports but also in preventing a deteriorating economy from disintegrating. The Iranian economy also succeeded in resuming its upward growth trend at remarkable rates once the initial shocks of

[14] FAO, *op. cit.*
[15] *QER-Iran*, *Annual Supplement*, *1985*, p 6.

the Revolution, the hostage crisis and the war were absorbed and it did so without financial help from other countries and without unduly increasing its foreign debt.

How much did the war cost?

No estimate of the cost can hope to be accurate. Certain elements of the cost are known while other elements will have to be estimated. There will also be the tremendous cost burden in the post-war period as the two countries attempt to repair and reconstruct their economies and pay for the debts and obligations which they have incurred in the course of the war. For the period up to the end of 1985 certain estimates will be made to arrive at cost magnitudes. Before making these estimates, however, it may be useful to make a few general observations regarding the defence burdens of Iraq and Iran.

Defence burdens: some measurements

Both Iraq and Iran have traditionally devoted relatively high portions of their national income to military spending. Between 1968 and 1972, Iraq, for example, allocated between 21 per cent and 27 per cent of its GNP to military expenditures. Iran's military expenditures during the same period absorbed between 13 per cent and 15 per cent of its GNP. The relative burden of military spending would be larger if it is related to

Table 4: Iran: relationship between military expenditures and GNP, 1977–83
($ billion)

Year	Military Expenditures	GNP	GNP minus Oil Revenue	Ratio of Military Expenditure To GNP	Ratio of Military Expenditure To GNP minus oil Revenue
1977	9.9	79.4	58.2	12.5	17.0
1978	12.1	76.1	56.8	15.9	21.3
1979	6.0	70.8	50.3	8.5	11.9
1980	6.7	74.5	61.0	9.0	11.0
1981	7.4	77.5	68.2	9.5	10.9
1982	8.5	85.4	69.5	10.0	12.2
1983	5.5	99.8	81.1	5.5	6.8

Sources: For GNP and oil revenue data, see Table 1. Military expenditures from *World Military Expenditures*, pp 66–7.

Table 5: Iraq: relationship between military expenditures and GNP, 1977–83
($ billion)

Year	Military Expenditures	GNP	GNP minus Oil Revenue	Ratio of Military Expenditures To GNP	Ratio of Military Expenditures To GNP minus oil Revenue
1977	3.6	18.4	8.8	19.6	40.9
1978	4.0	22.7	12.5	17.6	32.0
1979	5.1	35.8	14.5	14.2	35.2
1980	8.6	40.2	14.1	21.4	60.1
1981	11.8	30.4	20.0	38.8	59.0
1982	12.5	31.1	21.4	40.2	58.4
1983	11.9	32.2	23.8	40.0	50.0

Source: For GNP and oil revenue data, see Table 1. Military expenditures from *World Military Expenditures*, pp 66–7.

national income generated outside the oil sector. Thus in the case of Iraq, such spending absorbed between 26 per cent and 33 per cent of non-oil GNP while its share in Iran ranged between 14 per cent and 17 per cent of non-oil GNP during the same period. The high ratio of military spending to national income becomes even more striking when it is realised that for the Middle East as a whole military expenditures during this period accounted for between 8 per cent and 9 per cent of the region's total GNP and that the average burden of military expenditures for all developing countries did not exceed 6.4 per cent of their GNP.[16]

The sharp rise in oil revenue after 1973 made it possible for oil producing countries to increase their public sector expenditures including, of course, military spending. In the case of Iran such expenditures increased from $3.1 billion or 11.7 per cent of GNP in 1973 to $12.1 billion or 15.9 per cent of GNP in 1978, the last year of the Shah's regime. By the end of 1979 the newly established Islamic Republic succeeded in reducing military expenditures by one-half, to $6 billion, or 8.5 per cent of GNP. However, although the outbreak of the war with Iraq made it necessary to increase the defence budget, such spending never reached its pre-1979 levels. Thus, by 1982 military

[16] For data on military expenditures for the years before 1973 see US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1967–76*. Washington DC, 1978, pp 47–8.

expenditures peaked at $8.5 billion, or 10 per cent of GNP only to decline to $5.5 billion in 1983 or 5.5 per cent of GNP.

In the case of Iraq, military expenditures continued their upward trend with no interruption. From $800 million in 1972 Iraq's military spending increased to over $5 billion in 1979 and again to close to $12.5 billion in 1983. Relative to its GNP, Iraq's military expenditures accounted between a low of 14.2 per cent in 1979 and a high of 40.6 per cent in 1982. But if military spending is measured against non-oil sector national income, its burden is much heavier. In Iran, according to this measurement, military spending absorbed between 6.9 per cent in 1983 and 26.2 per cent in 1975. In Iraq, however, the ratio of military expenditures to non-oil sector national income ranged between 25.8 per cent in 1972 and 63.3 per cent in 1980. (Table 5)

Another indicator of the defence burden is the relative importance of the arms imports component in total imports. In the case of Iran, arms imports tended to constitute a much higher ratio of total imports in the years preceding 1980 when the war broke out. Thus, for the period 1974 to 1979 the ratio of such imports to total imports ranged between 11.3 per cent and 18.5 per cent. After the establishment of the Islamic Republic arms imports constituted 3.1 per cent of total imports in 1980, 7.8 per cent in 1981, 13.4 per cent in 1982 and 4.4 per cent in 1983. In the case of Iraq, arms imports constituted between 16.6 per cent and 38.1 per cent of total imports for the period 1974–9. But since the war broke out Iraq's arms imports have represented 13.8 per cent of total imports in 1980, 18 per cent in 1981, 19.9 per cent in 1982 and 43.6 per cent in 1983.

Yet a third indicator of the defence burden is the size of armed forces relative to population. Data published by the US Arms Control and Disarmament Agency show that in 1978 both Iraq and Iran had 11 persons in their armed forces per 100 people. By 1983 the ratio for Iraq had increased to 34.5 persons while in Iran it remained the same. It should be noted, however, that these figures tend to underestimate the defence burden to the economy of this particular indicator since the term armed forces may not include all the parliamentary forces which are engaged in the war effort.

The cost elements of the war

It is estimated here that Iraq has spent about $94 billion on the war between 1980 and 1985. This figure was arrived at by multiplying the value of arms imports by a factor of 4 which in turn was arrived at by

Table 6: Iran and Iraq: ratio of military expenditures to oil revenue, 1977–83
($ billion)

Year	IRAN Military Expenditures	IRAN Oil Revenue	IRAN Ratio Per cent	IRAQ Military Expenditures	IRAQ Oil Revenue	IRAQ Ratio Per cent
1977	9.9	21.2	46.7	3.6	9.6	37.5
1978	12.1	19.3	62.7	4.0	10.2	39.2
1979	6.0	20.5	29.3	5.1	21.3	23.9
1980	6.7	13.5	49.6	8.6	26.1	33.0
1981	7.4	9.3	79.6	11.8	10.4	113.5
1982	8.5	15.9	53.5	12.5	9.7	129.0
1983	5.5	18.7	29.4	11.9	8.4	141.6

Source: See Tables 1 and 4.

relating total military expenditures in the Middle East for the period 1973 to 1983 (which amounted to $430 billion) to the total value of arms imports into the region (approximately $100 billion). The annual cost of the war to Iraq is then estimated to be $15.7 billion. This figure does not include the value of fixed assets destroyed during the war, nor does it include lost oil revenue or lost output. The figure of $15.7 billion is somewhat higher than the *Quarterly Economic Review* estimate of $14 billion per year.[17]

Review

As to the cost of the war to Iran, the Iranian government itself maintains that the total cost of the war both direct and indirect amounted to $150 billion up to June 1982 and $200 billion up to the end of 1984, not counting lost oil revenue.[18] This means that since 1982 the annual cost of the war was in the vicinity of $20 billion. Adding the $20 billion cost for 1985 to the $200 billion, we arrive at a total cost of $220 billion.

The next step in the calculation is to estimate the value of oil revenue lost due to the war. By applying the rate of change in the oil revenue of all OPEC member countries to Iraq and Iran we arrive at what might be called implicit oil revenue. And by comparing these figures with actual revenue we arrive at an estimate of lost revenue. According to this

[17] *QER-Iran* (2) 1983, p 10.
[18] *QER-Iran* (2) 1984, p 12.

Table 7: Iraq and Iran: actual and implicit oil revenue 1978–84
($ billion)

	OPEC		IRAQ		IRAN	
Year	Oil Revenue $ billion	% Change from previous Year	Actual Revenue	Implicit Revenue	Actual Revenue	Implicit Revenue
1979	192.6	68.5	21.3	–	20.5	–
1980	275.0	42.8	26.1	30.4	13.5	29.3
1981	247.7	− 9.9	10.4	27.4	9.3	26.4
1982	193.0	−18.2	9.7	22.5	15.9	21.6
1983	153.9	−20.3	8.4	17.9	18.7	16.2
1984	159.4	+ 3.6	10.4	18.5	16.7	16.8
1985	159.4	0	10.4	18.5	16.7	16.8
Total (1981–5)			49.3	104.8	77.3	97.8

Sources: Computed from OPEC, *Annual Statistical Bulletin* (Vienna) for oil revenue for the years 1979–83 and *Petroleum Economist*, July 1985 for the 1984 oil revenue.

Note: Implicit revenue for 1980 was calculated by multiplying the actual revenue in 1979 by the rate of change in OPEC revenue in 1980 or by 42.8 per cent. The 1981 implicit revenue was arrived by multiplying the 1980 implicit revenue by 9.9 per cent, and so on. The 1985 revenue for OPEC was assumed to be the same as 1984.

method, Iraq lost $55.5 billion while Iran lost $20.5 billion, or a combined loss of $76 billion for the period 1980–4. (Table 7)

In addition to these elements one should also add to the cost of the war that part of the national output which would have been produced if the two countries were not at war. In the case of Iraq such loss of output is arrived at by calculating Iraq's potential output and subtracting from it the actual output. To arrive at the potential national output of Iraq the year 1980 was used as the base year. The potential output, or the GNP of Iraq for the years 1981–5 was assumed to have grown at an annual rate of 6.5 per cent in the absence of the war. The selection of the 6.5 per cent growth rate was determined by the fact that the combined GNP of all OPEC member countries grew at an annual average rate of 6.5 per cent during the period 1979–83. Thus, by applying the same growth rate to Iraq's GNP for the period 1981–5 we arrive at potential GNP of $284.2 billion for the five-year period under consideration. This potential GNP exceeds Iraq's actual GNP for the same period by $81.7 billion. But, in order to avoid double counting one should subtract from the $81.7 billion lost GNP the $55.5 billion lost oil revenue. By doing this we arrive at a figure of $26.2 billion which is considered to be the war-caused lost output above and beyond lost oil revenue. (Table 8)

Table 8: Iraq gross national product, 1980–5
($ billion)

Year	Actual	Potential
1980	40.2	40.2
1981	30.4	42.8
1982	31.1	45.6
1983	32.2	48.6
1984	34.3	51.8
1985	34.3	55.2
Total (1981–5)	202.5	284.2

Sources: See Table 1

Notes: Potential GNP was computed by applying to actual GNP the annual rate of growth of GNP of all OPEC countries as reported in *World Military Expenditures*, p 67

Similar calculations for Iran are not necessary since such GNP loss has already been included by the Iranian government in its own estimate of the cost of the war to the Iranian economy up to the end of 1984. For the year 1985 it is postulated that the actual rate of growth was of such high magnitude as not to warrant a computation of potential GNP. (Table 1)

The following is a summary of the main cost elements of the war:

Iran	*$ billion*
Cost of the war up to the end of 1985	220.0
Estimated lost oil revenue	20.5
Total	240.5
Iraq	
Military expenditures for the years 1980–5	94.0
Estimated lost oil revenue	55.5
Estimated lost GNP, 1981–5	26.2
Total	175.7

Total cost to both countries $240.5 billion + $175.7 billion = $416.2 billion.

To put the cost of the war of $416 billion in better perspective, it suffices to say that the oil revenue which both Iraq and Iran received throughout this century—from 1919 to 1985 in the case of Iran and from

1931 to 1985 in the case of Iraq—amounted to $364 billion. That is, the cost of the war already exceeded by $52 billion the entire revenue from oil ever since these two countries started to sell their oil on the world market. Relating the cost of the war to their GNP, it was found that the average annual cost of the war absorbed 54 per cent of Iran's GNP during the period 1981–5 and 96 per cent of Iraq's GNP during the same period.

It may be relevant to note that the cost of the war in Vietnam during the period 1965–74 amounted to $356 billion including $185 billion of lost output and that the annual economic burden of that war ranged between 2 per cent and 3 per cent of the American GNP.[19]

The war and Saudi Arabia's oil policy

No assessment of the economic consequences of the Iraq–Iran war can or should ignore the important role which the government of Saudi Arabia played to influence the course of the conflict. In addition to its economic and non-economic support to Iraq, Saudi Arabia employed its considerable oil power in the region and within OPEC to derive maximum benefits, both political and economic, for itself. This section will attempt to deal with Saudi oil policy since the war erupted.

To start with it can be said that the new regime posed a threat to the Saudi government. The threat arose from the regime's religious/political ideology which had the potential of disturbing the equilibrium of the region's established political and economic order. Thus, it became apparent to the Saudis that whatever reservations they might have towards the US-sponsored Camp David Accords would have to be subordinated to their common opposition to the new regime in Iran. This meant that the regional focus of Saudi policy attention had to be shifted from the Arab–Israeli conflict to finding ways and means of dealing with and containing the new realities in Iran.

The Saudi attempt to contain and weaken the new regime in Iran took two forms. First, there was the ever-present 'oil weapon'. Second, the Saudis attempted to rally the other countries of the Gulf behind their leadership against Iranian-inspired or Iranian-style political changes.

As to oil, the Saudis decided to raise their output in 1978 as soon as the Iranian output began to decline as a consequence of oil workers'

[19] See Robert W Stevens, *Vain Hopes, Grim Realities: The Economic Consequences of the Vietnam War*, New York, New Viewpoints, 1976, pp 186–7.

strikes in support of the revolution. Saudi output which was 7.1 million b/d in September 1978 was raised to 10.4 million b/d by December of that year (a jump of 46 per cent), presumably to make up for the loss of Iranian oil to the world market. But the world of oil, it should be stressed, was already suffering from an oil glut. Although Iranian oil was reintroduced to the world market, the Saudis continued their high output of oil well above their traditional level of 8.5 million b/d. The Saudi decision to keep output at a higher than normal level caused oil output in the entire OPEC region in 1979 to rise to 30.8 million b/d from 29.9 million b/d in 1978 despite a decline of 2 million b/d in Iran's output. It is worth noting that the Saudis did reduce their oil output in 1979 below 9 million b/d for three months only—April, May and June. This reduction, it was speculated, was meant to be a protest signal against the US-sponsored Egyptian–Israeli peace treaty, but this pressure signal was both unsuccessful and short-lived. Indeed, the Saudis responded to US pressure by increasing their output back to the 9.5 million b/d level, which they did in July of that year.[20]

Having decided to continue producing at a high level, the Saudis started to charge lower prices than those charged by their competitors in order to sell their oil. The Saudi policy of higher output in the face of a soft market in 1980 succeeded in causing Iranian output to plummet from 4 million b/d in September 1979 to 1.3 million b/d in August 1980. Since oil is Iran's main export and the main source of its foreign exchange earnings, it was clear that such a reduction was intended to cripple the Iranian economy and with it the Iranian regime. The magnitude of the drastic decline in Iranian exports may be appreciated when it is realised that prior to the Revolution Iran was producing about 6 million b/d of oil and exporting about 5 million b/d. By August 1980 Iran's output (1.3 million b/d) was reduced to one-fourth and its exports to one-seventh of their past levels. The other side of the Iranian loss was the increase in Saudi sales. This rise in Saudi output, it should be reiterated, took place in the face of a soft market and a decline in the output of every other oil producing country. In the Middle East non-Saudi oil output between 1978 and 1980 declined by 13 per cent (from 20.5 million b/d to 17.9 million b/d) while that of Saudi Arabia increased by 20 per cent (from 8.3 million b/d to 9.9 million b/d). It should be noted that the rise in Saudi output and exports took place at

[20] William B Quandt, *Saudi Arabia in the 1980s: Foreign Policy, Security, and Oil* Washington DC: The Brookings Institution, 1981, p 131.

Table 9: Six Middle East oil producing countries: oil output, 1977–84
(million barrels per day)

Year	1977	1978	1979	1980	1981	1982	1983	1984
Country								
Saudi Arabia	9.2	8.3	9.5	9.9	9.8	6.4	5.1	4.6
Iran	5.7	5.2	3.1	1.5	1.3	2.0	2.4	2.2
Iraq	2.3	2.6	3.5	2.6	.9	.9	1.0	1.2
Kuwait	2.0	2.1	2.5	1.7	1.1	.8	1.1	1.1
UAE	2.0	1.8	1.8	1.7	1.5	1.2	1.1	1.2
Qatar	.4	.5	.5	.5	.4	.3	.3	.4
Total	21.4	20.5	20.9	17.9	15.1	11.7	11.0	10.7

Source: OPEC, *Annual Statistical Bulletin* (Vienna) and *Petroleum Intelligence Weekly*, 18 February 1985.

the height of the American hostage crisis, which began in November 1979. Given the common interests of Saudi Arabia and the US, the role of the Saudis in bringing about the drastic reduction in Iran's output and export cannot have been unrelated to the hostage crisis.

When the Gulf war broke out it provided the Saudis with another opportunity to continue to expand their share of the oil market—this time at the expense of Iraq as well as Iran. Within a few days of the start of the Gulf war about 4 million b/d of Iraqi and Iranian oil were taken out of the world market. This gave the Saudis the opportunity to continue their policy of overproduction. This was done against all the available evidence that market conditions were soft and that the industrial countries were already in command of considerable oil stockpiles.

Saudi Arabia's policies in the aftermath of the Iranian Revolution and the Gulf War were inconsistent and contradictory. On the one hand, the Saudis wanted to weaken Iran's economy and its political system. To do this they had to resort to the only instrument of economic pressure at their disposal, oil. The Saudis used this instrument by raising their output and selling their oil at lower prices. The loss of market shares to the Iranians at a time of economic and political entanglement with the US and other industrial countries was a serious, but not a fatal, blow to the Iranian economy. But the contradiction in the Saudi policy was that its long-term consequences were damaging to the economic interests of all oil producing countries including Saudi Arabia as such a policy could not be discriminatory against the Iranians alone. Oil output and revenue data for the Middle East OPEC oil producing countries indicate how the Saudis exploited the difficulties of Iran first, and the

Table 10: Six Middle East oil producing countries: oil revenue, 1977–84
($ billion)

Year Country	1977	1978	1979	1980	1981	1982	1983	1984
Saudi Arabia	36.5	32.2	57.5	102.2	113.2	76.0	47.6	43.7
Iran	21.2	19.3	20.5	13.5	9.3	15.9	18.7	16.7
Iraq	9.6	10.2	21.3	26.1	10.4	9.7	8.4	10.4
Kuwait	7.5	7.7	16.8	17.9	13.8	7.5	8.7	10.8
UAE	9.0	8.2	12.9	19.5	18.7	15.5	11.7	13.0
Qatar	2.0	2.2	3.5	4.9	4.6	3.9	2.4	4.4
Total	85.8	79.8	132.5	184.1	170.0	128.5	97.5	99.0

Source: OPEC, *Annual Statistical Bulletin* (Vienna), *Petroleum Economist*, July 1985

Iraq–Iran war later, to reap a great deal of economic benefits and power. While in 1978 Saudi Arabia produced 40 per cent of the oil produced in the Middle East and received 40 per cent of the oil revenue by 1981, the first full year of the Gulf War, the respective shares were 62 per cent for output and 66 per cent for revenue (Table 9). But the improvement in the position of Saudi Arabia is even more impressive if we were to focus attention only on Iraq, Iran and Saudi Arabia. In 1978 Saudi Arabia received 52 per cent of the combined oil revenue of the three countries with the remaining 48 per cent going to Iran and Iraq (31 per cent to Iran and 17 per cent to Iraq). By 1979 Saudi Arabia managed to raise its share to 58 per cent and to 72 per cent by 1980. In 1981 Saudi Arabia's share reached a staggering 85 per cent of the combined oil revenue of the three countries only to decline to 75 per cent in 1982, 64 per cent in 1983 and 62 per cent in 1984 (Table 10).

Although he did not mention Saudi Arabia by name, the thrust of the critical remarks made by Iraq's President, Saddam Hussain, regarding Saudi Arabia's policy of overproduction was very clear when he said:

> We direct our friendly but also serious criticism toward some Arab brothers whose production and marketing policies have led to the creation of a glut in the oil market. We cannot possibly find convincing arguments in favour of this policy and its goals. Its harmful effects upon the Arab oil producing states and others is very clear. If some oil producing states have financial surpluses, we do not all possess such an accumulation of wealth. We also do not see any wisdom in production that leads to a glut in the oil market.[21]

[21] *MEES*, 27 July 1981, pp 1–2.

While the Iraqi President was appealing to the Saudis to reconsider their high output policy, the Iraqi Minister of Oil, Mr Tayeh Abdul-Karim, who was also a member of Iraq's Revolutionary Command Council, accused the government of Saudi Arabia of creating the oil glut in order to prolong the Gulf War:

> That country's policy of continuing its high output beyond its needs is suicidal and cannot be explained in any terms other than the desire to harm others . . . . . . were it not for the oil glut, which may have been inspired and planned to prolong the Gulf War and wear down Iraq, the Gulf War would now be over . . .[22]

Iraq was not the only country claiming that Saudi oil policy was dangerous to the economies of other countries. The Libyan leader, Colonel Muammar Qaddafi, decried the Saudi policy as having 'harmed the people of Algeria, Kuwait, the Gulf and Nigeria.'[23]

It is important to note that these protestations from Arab countries came in the wake of Sheikh Ahmed Zaki Yamani's celebrated 19 April 1981 interview on the National Broadcasting Corporation's 'meet the Press' in the United States. In that broadcast Sheikh Yamani boasted that it was the Saudis who had engineered the oil glut when he said:

> Q: As a result of conservation, a stagnant economy and other factors, there is now an oil glut on the international market. Some nations and some American companies have been lowering prices. Would your country have any plans to lower production or to lower prices?
>
> A: Well, as a matter of fact, this glut was anticipated by Saudi Arabia and almost done by Saudi Arabia. If we were to reduce our production to the level it was at before we started raising it, there would be no glut at all. We engineered the glut and want to see it in order to stabilise the price of oil.

Sheikh Yamani went on to say that the Saudis could reduce their output to 6 million b/d (or by 40 per cent) and live happily with that.[24]

Ironically, while Iraq's oil facilities continued to be out of action, the Iranians whose exporting terminals were functioning were able in time to expand their output and export. Iran was able to expand its oil exports through price reduction. By beating the Saudis at their own price game other countries found themselves following the Iranian lead and cutting their prices either openly or through various discount mechanisms. In contrast to these countries, Iraq found itself in more

[22] *MEES*, 7 September 1981, p 2.
[23] *Ibid.*
[24] *MEES*, 27 April 1981, (Supplement), pp 1–2.

economic difficulties as time went on and the Gulf War continued, especially after Syria's decision to close its pipeline in 1982.

Iran's success in increasing its output and regaining some of the market share it lost to Saudi Arabia created a number of conditions which had a profound impact on the role of these two countries within OPEC and upon OPEC itself. The Saudis, to their detriment, adhered to the position that the glut was not only controllable, since they thought they had created it, but also temporary. As late as April 1982, the then Prince Fahd announced that the oil glut would end in two or three months. This mistaken belief led the Saudis to keep to the official price of oil at a time when Iran and other OPEC member-countries were reducing their prices and recapturing market shares they had lost to the Saudis. The Saudi's continued loss of export markets to other producers prompted them to demand that other countries raise their prices. When such demands were ignored, the Saudis resorted to threats that they would increase output and lower prices in order to impose punitive measures against those countries which were engaged in price cuts. The Saudi threats this time stemmed from a position of weakness in that, with the decline in their output, they were losing control over OPEC and over the oil market. In order to counter the behaviour of Iran and Libya and other producing countries, the Saudis this time took an unusual step by working outside the framework of OPEC. In a meeting of the oil ministers of the six member-countries of the Saudi-led Gulf Cooperation Council (GCC) in October 1982, the ministers attacked other oil producing countries for their 'irresponsible behaviour' and lectured them on how 'to shoulder their responsibilities' and that if they continued in their 'misguided actions,' they would not be protected from the 'consequences of these actions' by GCC member-countries and that the GCC had decided to issue the warning in order to make the 'nonconformists realise that they will have to shoulder the blame tomorrow'.[25]

It is clear from the text of the statement that the Saudis used the GCC to pressure and threaten other Arab oil producing countries and Iran to fall in line. This meant that the use of the Saudi 'oil weapon' had come full circle. Instead of using it to exert pressure for just Arab causes it was being used now to undermine the economic interests of other Arab countries.

Yet the Saudi-led coalition failed in its attempt to force other

[25] For the text of the GCC Oil Ministers' statement, see *MEES* 18 October 1982, p 3.

countries to raise their prices. Market conditions had changed to the degree that it was simply not feasible to raise prices. The decline in the demand for oil coupled with the effective use of oil stockpiles by industrial countries made it possible for the Iranians and others to assert their position within OPEC. More important, the change in the balance of power within OPEC was manifested also in that the Saudis eventually agreed, for the first time, to an OPEC-wide programme of production allocation. There was a great deal of truth and realism in a statement made by the Iranian Oil Minister, Mr Mohammed Gharazi, when he said:

> . . . the political strength of Iran . . . has forced Saudi Arabia to reduce its production from 11 million to 4 million b/d. Saudi Arabia thought that with its level of production it can enforce its wishes on our brothers in OPEC and in the region . . . I announce that my country has fought Saudi Arabia and has caused the failure of its oil production and political aims.[26]

The acknowledgement by the Saudis of the limit of their oil power came in March 1983. At an unusually lengthy meeting of OPEC in that month the Saudis had to concede that there was an oil glut in the world market, and that the price-setting power had shifted to other oil producing countries; that prices had to be reduced; and that the output of all member-countries had to be regulated.

Economic prospects after the war

The Gulf War, already in its sixth year, has created several structural problems that will require a long time to overcome. As was mentioned earlier, the war resulted in major reduction in oil output, loss of markets and revenues, loss of foreign exchange reserves, destruction of cities, and infrastructure including roads, harbours, transportation and communication systems. The war also crippled the growth of the industrial and agricultural sectors as well as investment and development programmes. It depleted military supplies and caused a rise in the indebtedness of both countries, especially Iraq. The war also distorted the configuration of the various segments of the labour market which resulted in labour shortages and, in the case of Iraq, led to dependence on foreign workers. The war created serious internal refugee problems, especially in the case of Iran, a situation which added to general economic difficulties.

[26] *MEES*, 31 January 1983, p D8.

The solutions to these and other economic problems will be more difficult the longer the war persists. But regardless of how long the war lasts, the two countries will have to face the monumental task of repair, reconstruction and development. The task of reconstruction will be complicated by several difficulties and bottlenecks. In the first place and based on historical experience of other countries, the two countries will almost certainly devote considerable economic resources for the purpose of rebuilding and re-equipping their armed forces as well as the replenishing of their depleted stockpiles of arms and munitions.

The task of repair, reconstruction and development will be costly, difficult and long. It will be costly because the replacement cost of new assets will, due to the general rise in prices, be much higher than the cost of the original assets to be replaced. Apart from the monetary cost of replacement there is another form of cost, namely, the time factor. To the extent that major assets such as refineries, factories, airports and the like were produced by foreign enterprises, a long time will be needed for planning and construction. To illustrate this point let us take the case of a refinery or a petrochemical plant which needs to be replaced. In both of these cases the process requires, among other things, that the decision be placed in the national context of an investment plan, that feasibility studies be made, bids be solicited, and contracts awarded and implemented. And since each one of these stages in the process requires foreign labour, raw materials and capital goods, it is not difficult to appreciate the magnitude of the process of reconstruction and development. It will take Iraq and Iran many years to restore their productive capacity to pre-war level.

All of the above, it should be stressed, is predicated on the assumption that financial resources will be available in order to go ahead with the process of reconstruction. Unfortunately, this will not be the case. The main explanation for this is that both Iraq and Iran have become so dependent on their oil sector that the process of reconstruction will hinge on the availability of oil revenue. But herein lies the main problem and bottleneck. If the war were to end soon, both Iraq and Iran would find themselves in a world oil market that has a demand for OPEC oil which is less than one-half its volume when the war started. Currently, OPEC member-countries cannot sell more than 12–13 million b/d compared with almost 27 million b/d in 1980. And in an oil market characterised by severe excess capacity which shows no sign of subsiding, it will be very difficult indeed for either country to expand its output without at the same time taking market shares from other OPEC member-countries. Indeed both Iraq and Iran have already stated that they must have a higher share in OPEC output than the one they currently have. In the case of Iran the desired target of output is 19 per cent instead of the present 14.4 per cent of OPEC total output or a return to its pre-Revolution share. Similarly, Iraq would like to see its share raised from its current level of 7.5 per cent to its pre-war level of 12 per cent. If OPEC were to accommodate Iraq and Iran then some 10 per cent of current OPEC output would be re-allocated to Iraq and Iran. This would entail major changes in the way quotas are assigned and power is divided within OPEC, an outcome very few member countries would welcome. If, on the other hand, OPEC were to refuse to make the necessary changes, it is not inconceivable that both countries would find themselves raising output and cutting prices in order to recapture their lost shares of the oil market. If they were to follow this strategy it is certain that other producing countries would retaliate by lowering their prices in order to protect their own market shares. Should this be the case it is possible that the OPEC price structure may collapse altogether resulting in ruinous economic consequences for all. It can be argued that most of the adjustment in output should be made by Saudi Arabia for the reasons mentioned earlier and especially because Saudi Arabia was able, because of the Iranian Revolution and the war, to accumulate considerable amounts of reserves. Such expectations are not realistic in light of the established market behaviour of the Saudis, their needs, and their current policies of raising their output and allowing prices to fall below OPEC official prices.[27] But even if the Saudis and other members of OPEC were to make certain adjustments this would not be sufficient given the tremendous financial needs of Iraq and Iran. These two countries will almost certainly have to borrow heavily if the process of rearmament, repair and reconstruction and development are to go ahead. But there are at least two constraints on this option. First, the international capital market may not be willing fully to accommodate the capital needs of Iran and Iraq. Second, neither Iraq nor Iran may opt to borrow heavily given the depressed conditions of the oil market and the improbability of their being able to generate a balance-of-payments surplus sufficient to pay back the debt.

[27] See Youssef M Ibrahim, 'Saudis decide to raise oil output, spurring chance of a price war', *The Wall Street Journal* (New York) 16 September 1985, p 1 and 'OPEC Officials Nearly Declare a Pricing War', *ibid.*, 10 December 1985, p 2. See also 'Yamani warns price could drop to $20/B' *MEES*, 2 December 1985, p A1.

If Iraq and Iran cannot borrow, or will not borrow, and if OPEC member-countries will not meet Iraq and Iran's needs then there is really no alternative but for them to resign themselves to the realisation that their economies will be performing below their pre-war productive capacity for a long time to come.

It is no exaggeration to say that the war has already set back the pace of and prospects of economic development in Iran and Iraq for decades to come.