The U.S. is the world's largest oil importer, by far; it is the only major country whose oil imports in 1977 were above the level of 1973; and it is, of course, the single most important customer of OPEC. These factors have given U.S. oil imports a dominant role in world oil economics. Under some assumptions this role could become still more pivotal in the future: if the high end of the range of recent forecasts of U.S. oil import requirements by 1985 -- 14-15 million b/d -- is correct, a world oil shortage in the mid-1980's is a strong probability; if the low end of the range -- 6-7 million b/d -- is correct, the world oil surplus could be larger by then than at present.

It may therefore be of interest to briefly analyze several aspects of U.S. oil imports: the reason for their remarkable increase in the last four years; their likely future level, both short term and long term; and the attempts by the U.S. government to reduce oil imports. But first a few data to establish a frame of reference: in 1977, U.S. oil imports of about 8.6 million b/d supplied 46% of U.S. oil demand; these imports accounted for about one quarter of total world oil trade; nearly 80% of them came directly from OPEC; and about 22% of OPEC's exports went directly to the U.S.; the inclusion of indirect imports from non-U.S. Caribbean refineries would raise this percentage by several points.
The Rise of Imports Since 1973

Between 1973 and 1977 total U.S. oil imports rose by 2.3 million b/d or 38% while imports from OPEC alone rose by 3.5 million b/d or more than 100%. These increases were of major significance to both oil exporters and other oil importers. For OPEC it has meant that total oil exports in 1977 were probably fractionally above the previous record of 1973. In the absence of the U.S. import increases in those years, OPEC's oil surplus, i.e. the difference between actual production and allowed maximum production levels, would have been about twice the currently reported size of 2.5-3.0 million b/d, assuming all other things had remained unchanged, including absence of a coordinated OPEC production policy. Underlivings of OPEC oil of that magnitude would probably have had at least a marginal downward effect on prices, either in the form of lower official sales prices or higher discounts off these prices. Thus, from OPEC's point of view, the U.S. import increases of 1976 and, particularly, 1977 have been the major factor in containing the current world oil surplus and, hence, supporting the price levels set by OPEC members. This is not to suggest that OPEC would have functioned less effectively in the absence of the U.S. oil import increases. But the resulting lower demand for its oil would have had to be taken into account in its economic policy decisions and those of its members.

For the world's oil importers other than the U.S., the U.S. import increases had of course exactly the opposite effect. These countries have therefore tended to be critical of U.S. oil policy, particularly, since in both Europe and Japan not only import levels but oil consumption
levels are still below the 1973 peak. To evaluate these criticisms it is important to understand the reasons for the sharp increase in U.S. oil imports.

The principal reason, by far, is the decline in U.S. oil and gas production. Between 1973 and 1977 average annual U.S. crude oil production dropped by one million b/d and natural gas production by 2.65 trillion cubic feet, equal to 1.25 million b/d of oil. Together these two figures are equal to 96% of the increases in U.S. oil imports during this period.

In other words, combined U.S. oil and gas consumption has remained virtually stationary between 1973 and 1977, but domestic supplies have declined, necessitating offsetting imports. Since U.S. gas imports have remained unchanged at about 1 trillion cubic feet annually, the entire decline had to be met through oil imports. An additional factor in 1977 was the exceptionally cold weather in the eastern half of the U.S. and the drought on the West Coast, both of which caused a further temporary increase in oil import requirements.

The faster rise in imports from OPEC than in total oil imports was due primarily to the phasing out of exports by Canada, whose sole export market is the U.S. In 1973 Canada supplied the U.S. with 1.3 million b/d of oil; in 1977 the figure was down to about 400,000 b/d.

These facts do not square with the charge sometimes levelled against the U.S. that the rise in its oil imports is due primarily to wasteful consumption of oil by the American public, aided by continued
price ceilings below world market levels on most domestic crude oil and natural gas production. In fact, the principal oil fuel consumed by the public -- motor gasoline which accounts for nearly 40% of total U.S. oil demand -- has shown a total increase of only 7.3% between 1973 and 1977, compared to nearly 10% in Western Europe and 7.7% in Japan, on the basis of partial data for 1977.

The Outlook for U.S. Oil Imports

In 1978 U.S. oil imports for consumption will probably show a decline of 350,000-450,000 b/d from last year, due largely to the onset of full scale oil production -- about 1.2 million b/d -- in Northern Alaska by March and a drawdown in commercial inventories. However, this decline will be largely offset by 300,000-400,000 b/d of special imports by the government to build up a U.S. Strategic Petroleum Reserve for emergency use. These latter imports are scheduled to continue at an average rate of 350,000-400,000 b/d through 1980 under published plans which are, however, currently under review.

Imports for consumption will start rising again from about 1979 on, but at a very much reduced rate. Our own forecast shows the following minimum increases in U.S. oil imports over the next 13 years,

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<tr>
<td>Million b/d</td>
<td>8.6</td>
<td>9.3</td>
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Annual Growth Rates | 2.6% | 0.7% | 1.0% |

Note: Excludes imports for the Strategic Petroleum Reserve.

These rates compare with an annual growth of 8.6% for the period 1973-77.
As pointed out, our projections are minimum import requirements based on relatively optimistic, but not unreasonable, assumptions in the current environment regarding energy conservation and domestic energy supplies. But even if our projections should be exceeded by as much as a million b/d both in 1985 and 1990, the increases would still be relatively modest (2.6% annually for the period 1977-85 and 1.8% for the period 1980-90). It is therefore likely that the U.S. will permanently lose its unwanted role of being the pace setter in the growth in world oil requirements.

The reason for the expected levelling off in the growth in U.S. oil import requirements is a combination of factors: the reaction to higher oil prices, technological improvements in energy conservation, the growth of non-oil energy sources and, perhaps most importantly, substantially slower economic growth rates than in the last two years. How soon and by how much these factors will reduce incremental U.S. oil import requirements is a matter of debate among the experts. But there is general agreement that eventually their impact will be significant.

In fact, some of it is already visible. Take the energy/GNP growth ratio, the so-called energy coefficient which is considered a very good indicator of a nation's efficiency of energy utilization. For the 20-year period, 1953 to 1973, the ratio was about 1:1, that is each percentage increase in GNP required a similar percentage increase in net energy expenditure. In the last two years (1976-1977) the ratio has declined by 17% to about 1:0.83. It is not at all unreasonable to assume that it will decline further between now and 1985, given the mandated
improvement in the fuel efficiency of automobiles, the current boom in the sale of home insulating material and the many announced plans by industrial firms to reduce energy input per unit of output.

Energy from unconventional new sources is developing at a rather slow rate, some might even call it disappointing. Still a contribution of synthetic fuels from coal and shale, equivalent to nearly 1 million b/d by 1990 appears quite reasonable on the basis of existing plans for pilot projects. More important is the rapid growth in U.S. nuclear power capacity and the revival in the use of coal in power stations and industrial plants. In 1973 nuclear power provided less than 1% of total U.S. energy requirements. By 1980 its share will have grown to 4% and by 1990 it could well approach 12%. At an annual growth rate of 12-13% over the next 13 years it will be a major factor in reversing the growth of oil to generate electric power from 1980 on.

U.S. coal consumption which has grown at an average annual rate of only a little over 1% from 1965 through 1976 is projected to rise at about 4.5% annually (on a Btu basis) over the next 13 years. At that growth rate the additional consumption in 1990 will be equivalent to over 4.5 million b/d of oil.

To some extent these positive factors will of course be offset by the continuing decline in domestic natural gas supplies and the inability to raise conventional domestic crude oil production from all sources significantly above this year's level.

However, we must also factor the likely lower general U.S. economic growth rate into our future energy requirements. In 1976 and 1977 the
U.S. GNP grew at 6% and almost 5%, respectively, pulling energy demand along with it. In 1978 the growth rate may hover around 4% and in the 1980's it will probably average less than 3.5% which will be at least one full percentage point below the long-term pre-1973 rate. With an expected population increase of less than 1% and a progressive increase in the average age of the population, this can be considered a normal and politically acceptable development for a mature, highly industrialized economy, resulting in a corresponding deceleration in the growth in energy demand.

Taken together, these developments will not be enough to actually reduce the volume of oil imports from the level of 1977 (except for the next one or two years). Hence, the Administration's announced goal in its National Energy Plan of a reduction in imports to 6-7 million b/d by 1985 will not be reached or approached. But market factors plus existing and planned legislation to conserve gasoline demand through improved automobile efficiency and "gas guzzler" taxes, to convert electric utilities from oil and gas to coal and to give preference to coal in new industrial plants are bound to have a significant collective impact on future demand. Since oil imports are the balancing fuel in U.S. energy supplies, any reduction in the growth rate of total energy requirements will ultimately be translated into lower oil imports. Thus, a scenario under which these imports will grow only very modestly from their all time peak of 1977 must be considered a realistic one. Accordingly, if recently published forecasts of a 10 million b/d increase in world requirements for OPEC oil over the next 10-12 years are correct, the great bulk of this increase will be required by countries other than the U.S.