



Summer 1973

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### Recommended Citation

Helmut J. Frank & Donald A. Well, *United States Oil Imports: Implications for the Balance of Payments*, 13 Nat. Resources J. 431 (1973).

Available at: <https://digitalrepository.unm.edu/nrj/vol13/iss3/3>

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# UNITED STATES OIL IMPORTS: IMPLICATIONS FOR THE BALANCE OF PAYMENTS

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A major problem confronting the American economy during the remainder of the 1970's is a shortage of primary energy sources. The energy shortage, which has emerged during the past two years, is expected to become much more severe in coming years. John G. McLean, chairman of Continental Oil Company and chairman of the National Petroleum Council's Committee on U.S. Energy Outlook, has warned that imports of crude oil will precipitate a large and growing deficit in the United States' balance of trade in fuels; and the deficit could amount to as much as \$25 billion by the early 1980's, as compared with a current deficit of less than \$3 billion.<sup>1</sup> The Chase Manhattan Bank has indicated that "the annual balance of payments deficit for petroleum alone could be as much as 25 billion dollars" by 1985,<sup>2</sup> a figure which corresponds to what is generally considered the most likely of the four estimates of the National Petroleum Council (Case III).<sup>3</sup>

The U.S. has experienced substantial balance of payments deficits in recent years. In 1971, on an official settlements basis, the U.S. international accounts recorded a deficit of \$29.8 billion, and the dollar had to be devalued for the first time since 1934. Subsequent devaluations and the weakness of the dollar in international markets have resulted from continuing deficits. Obviously, increased import bills for oil (and gas) in the future will make it more difficult for the U.S. to establish balance in its international payments and receipts; if the magnitudes expressed above are realized, the balance of payments position of the U.S. might become untenable. Certainly substantial increases in imports of petroleum could undermine programs initiated to shore up the value of the dollar.

In this article we examine the background of the energy shortage, give projections of future import requirements by 1980, estimate the cost of these imports, examine their probable impact on the U.S. international payments position, and discuss some of the balance of payments adjustment mechanisms designed to cope with this impact.

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1. Remarks by McLean, *The United States Energy Outlook and Its Implications for Western Europe*, at American Chamber of Commerce, London, England (July 13, 1972).

2. Winger, *Outlook for Energy in the United States to 1985*, at 51, (Energy Economics Division, The Chase Manhattan Bank (1972)).

3. National Petroleum Council's Committee on U.S. Energy Outlook, Report, U.S. Energy Outlook 298 (1972).

We emphasize two questions: (a) whether an oil import bill of \$25 billion in 1985, or an equivalent bill of around \$18 billion in 1980,<sup>4</sup> measures the true balance of payments impact of future oil imports; and (b) whether, and how, the American economy will be able to cope with the cost of such a greatly increased volume of oil imports.

## U.S. ENERGY PROSPECTS FOR 1980

### *Energy Balances*

The projections published by the National Petroleum Council<sup>5</sup> will conveniently illustrate the consensus forecast of U.S. energy supply and demand for 1980. Other recent projections contain slightly different numbers for energy demand and the various components of supply. The orders of magnitude, however, are quite similar and the qualitative discussion would not be affected. The salient features are the following:

Primary energy demand is expected to increase at a compound annual rate of 4.2%, to a total of 102.6 quadrillion ( $10^{15}$ ) BTU's from 67.8 BTUx $10^{15}$  in 1970.

Total domestic supply will expand, but only at a rate of 2.5% per year, from 59.4 BTUx $10^{15}$  to 76.2 BTUx $10^{15}$ .

Import requirements consequently will rise from 8.4 BTUx $10^{15}$  to 26.4 BTUx $10^{15}$ , i.e., they will triple. The share of imports will increase from 12.4% to 26% of total U.S. energy supply.

The major reason for the widening gap is the limited domestic supply of the two largest energy sources, oil and gas, at present prices. Together these account for over 75% of total primary energy sources. Domestic production of natural gas is currently at or very close to a peak, under current economic and operating conditions, and is expected to fall by some 13% by 1980. Some synthetic gas will be produced, chiefly in naphtha reforming plants and perhaps also from coal, but the volumes by 1980 will still be modest and will only permit total domestic gas supplies to remain at the 1970 level. This will occur at a time when demand for gas continues to increase rapidly because of its superior quality as a clean fuel and its attractive price (held down by federal regulation).

Domestic production of petroleum liquids (crude and natural gas

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4. We concentrate on 1980 because the options for changing energy demand or the availability of energy supplies are very limited over this time period. Policy decisions taken in the near term, however, could influence substantially the level of oil imports, and hence balance of payments projections, for 1985.

5. National Petroleum Council, *supra* note 3. We use the "intermediate case" for demand increases and Case III, which assumes low finding and medium drilling rates, for supply projections.

liquids) is expected to expand less than 3% by 1980. This increase, however, will only be achieved if oil from the Alaskan North Slope is available at the full capacity of the Alaska pipeline (2.4 million barrels per day). Supplies from existing U.S. sources are projected as falling by 19% from 1970. No substantial contribution from synthetic liquids (shale, tar sands, or coal liquefaction) is anticipated by 1980.

Constraints imposed by technology, price-cost relationships, large capital investments, and long lead times make a reversal of the prospects for 1980 highly unlikely. Given sufficient time, of course, additional options can be developed. Higher prices would tend to stimulate production of oil and gas from conventional sources, though precise magnitude and timing of responses are not known. Technological breakthroughs, in time, would permit large-scale application of new sources and technologies such as breeder reactors, controlled nuclear fusion, or solar energy. Also, as existing sources of energy in natural form become increasingly scarce their prices tend to rise, bringing the commercial application of new energy forms closer. But even strong governmental support for these new sources will hardly permit them to play a role much before the mid-1980's, if then. Relief from much greater reliance on imports is thus unlikely, in the absence of such unrealistic possibilities as severe rationing of energy or removal of environmental constraints on energy production, transportation and utilization, or of very steep price increases.

### *Volume of Oil Imports*

Somewhat larger imports of gas in various forms are anticipated by 1980—3.75 trillion cubic feet compared with 0.8 TCF in 1970. But this would permit total gas supplies from all sources (domestic plus imports, natural plus synthetic) to increase only modestly (13%) during the decade. The potential contribution of imports is quite limited. Increased pipeline movements depend on availability of surpluses in Canada beyond that country's own long-range requirements, which are very conservatively estimated. A contribution from new regions, such as the Canadian Arctic, is not likely before 1980. Imports from overseas require liquefaction at the source and transportation in specialized methane tankers at very low temperatures. This raises the cost to two or three times that of natural gas and is likely to keep the volumes shipped quite limited.

The primary emphasis will thus be on importation of oil. In contrast to gas, oil is currently available in abundance from a variety of overseas sources, and at a cost below that of domestic oil. In the Middle East alone, proved reserves at the beginning of 1973 amounted to 356 billion barrels, two-thirds of Free World reserves

(excluding the United States) and equivalent to about 55 years' supply at the current production rate.<sup>6</sup> Other sizeable reserves exist in North and West Africa, and Indonesia. Together, these could support any likely demands which the United States may make on them in 1980 and beyond (in addition to the Eastern Hemisphere's own requirements).

Current estimates of supplies available from Western Hemisphere sources are much more modest. No really major new discoveries have been made in established producing areas of Western Canada in two decades and production is approaching capacity. Further expansion will then depend on sufficient reserves being established in the frontier areas (the Arctic and Offshore regions), but again these probably would not be available until after 1980. Some increase in the contribution of synthetic crude recovered from Canadian tar sands (in the Athabasca area of Alberta) is likely, although the first plant is still incurring losses after four years of operation.

Prospects for increased supplies from Latin America are even bleaker. Reserves in the major exporting country, Venezuela, have been static and production has recently been falling, chiefly due to high costs caused by increased taxation. Rising internal demands within Latin America are expected to reduce the area's export potential in coming years. Sizeable supplies of synthetic oil could be developed only in the Orinoco Tar Belt in Venezuela, which could potentially yield a crude of heavy fuel oil quality particularly suitable for direct burning in U.S. power plants, especially on the East Coast.

The remaining deficit would have to be met by imports from Eastern Hemisphere sources. Based on the assumptions explained above, this would amount to 7.6 million barrels per day in 1980. Total oil imports would constitute nearly half (48%) of total oil supply, with Eastern Hemisphere amounting to over one-third of the total. The contrast with assessments made a scant three years ago is striking.<sup>7</sup> Projected balances for 1980 and comparisons with 1970 are shown in the following table.

### *Cost of Oil Imports*

The posted price of a typical Middle East crude, in the Persian Gulf, such as Arabian 34° was \$2.591 per barrel, f.o.b. Ras Tanura, in

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6. 70 *The Oil and Gas J.* 82-83 (1972). The N.P.C. Oil Supply Task Group believes these estimates to include both proved and probable reserves and suggests a range of 230-275 billion for proved reserves only. See 2 National Petroleum Council, U.S. Energy Outlook, An Initial Appraisal, 1971-1985 (1971).

7. The Cabinet Task Force on Oil Imports, with a strongly pro-free-trade majority, implied in 1969 that imports from Eastern Hemisphere sources should be limited to 10% of total supply for national security reasons.

TABLE 1  
U.S. Petroleum<sup>a</sup> Supply-Demand Balance, 1970 and 1980  
(million barrels per day)

	1970	1980
Estimated Requirement	14.7	22.3
U.S. Production		
Established areas	11.3	9.2
Alaska North Slope	—	2.4
Total	11.3	11.7 <sup>b</sup>
Required Imports from:	3.4	10.6
Canada	0.7	1.1 <sup>c</sup>
Latin America	2.1	1.9 <sup>c</sup>
Eastern Hemisphere	0.6	7.6 <sup>d</sup>

a. Crude plus natural gas liquids.

b. Includes 0.1 syncrude from shale.

c. Quantity available for net export.

d. Residual figure.

Source: National Petroleum Council, *U.S. Energy Outlook*, pp. 61 and 262.

January 1973. Adding tanker transportation at an appropriate rate (World Scale 70) of \$1.02 per barrel yields a landed price at the U.S. East Coast, ex-duty, of \$3.61 per barrel. This is about 10% below the cost of comparable domestic crudes (around \$4.00 a barrel). Import prices at the West and Gulf Coasts would be very similar, although domestic prices would be lower because of transportation savings.

For determining the balance of payments impact of oil imports, however, the use of posted prices is not appropriate. Nor can one use the current figures to represent future costs of imports, since costs and prices of foreign crudes are on a rising trend, which is unlikely to be halted in the near future. The use of economic (resource) costs in estimating future oil prices is also misleading. This is based on the assumption that prices tend, in the long run, to approach a competitive equilibrium representing economic costs, including a competitive rate of return on capital (appropriate for the risks involved). Any margin above such costs is considered to be the result of temporary frictions, which tend to disappear once market forces have sufficient time to exert their full force. It is particularly important, in this context, to be clear on the nature of economic rent. This is a form of income that, by definition, is not required to draw out needed supply. Competition could, therefore, drive down price until all rent is eliminated, without impairing production.

This concept was advanced until very recently as appropriate to forecasting future world oil prices.<sup>8</sup> During the past two years, however, the Organization of Petroleum Exporting Countries (OPEC), which controls some 90% of Free World exports, has become a most effective force in controlling world oil prices. It has been able to: raise posted prices, on which tax calculations are based; schedule further increases to 1975; raise the governments' share of total profits; increase prices to compensate for devaluation of the U.S. dollar; and obtain government participation in producing operations,<sup>9</sup> with prospect of majority control by 1982. All available evidence points to a further increase in the strength of the producing countries, vis-a-vis the Western consuming countries, in coming years.

The relevant concept for determining the future cost of Middle East crude oil to Western oil companies is two-fold: (a) the total cost to the oil companies of producing foreign crude, which includes resource costs plus government payments (tax-paid cost), and (b) the cost at which the companies will be able to buy back crude oil accruing to the producing countries under participation agreements, but which are sold through commercial channels because of the inability of most government companies to market sufficient volumes of oil directly.<sup>10</sup>

To this concept must be added the cost of transporting the oil to U.S. ports. This presumably will be done by the most economical means available, very large tankers (VLCC's) of 200,000 DWT or more. Virtually all of these ships are foreign flag vessels because of lower construction and operating costs. Currently there are no ports along the U.S. East Coast or Gulf Coast which can accommodate these ships, but plans to develop several are well advanced. Also, adjacent locations (e.g., Canada, Puerto Rico or the Bahamas) may serve as transshipment points for import to the East Coast.

We have estimated the cost of U.S. crude imports for 1980 on the following specific assumptions:

1. Posted prices will be increased by 7% following the currency realignment of early 1973. This assumes an average dollar devaluation of 9% and application of the Geneva formula.<sup>11</sup>

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8. See e.g., M. Adelman, *The World Petroleum Market* 262 (1972).

9. Iran is not insisting on the participation concept, on the ground that the oil is already owned by the nation under the existing agreement with the Consortium of foreign oil companies, but it has achieved other important concessions instead from the members of the Consortium.

10. Profits earned on crude oil exported to the United States should not be included, for balance of payments purposes, if one assumes that shipments will be handled by American companies and that earnings will be remitted to U.S. parents.

11. *The Oil Daily*, Feb. 27, 1973.

2. Thereafter posted prices will increase until 1975 in line with existing agreements, i.e., by 2.5% plus 5¢ per barrel per year.

3. Between 1975 and 1980, posted prices will rise at the same rate as the average increase in the price of manufactured goods in world trade, assumed to run 5% per year.<sup>12</sup>

4. Production costs of 13¢/bbl., the figure currently reported for Saudi Arabia, are representative for the Persian Gulf area and will not change significantly.

5. Royalty and tax payments to the host governments will be determined as at present, i.e., royalty at 12.5% of posted prices and income tax at 55% of the tax reference price (posted price less production costs and royalty).

6. The private companies will buy back 13.75% of total production under the formula for phase-in crude, at the price agreed upon in late 1972 (for light Arabian crude, tax-paid cost plus 35¢/bbl).<sup>13</sup> We have

TABLE 2  
Cost of Saudi Arabian Crude  
(F.o.b. Ras Tanura, 34°, \$/Bbl.)

	1-1-73	4-1-73 <sup>a</sup>	Est. 1975	Proj. 1980 <sup>b</sup>
Posted price	\$2.591	\$2.773	\$3.014	\$3.847
Prod. cost	.130	.130	.130	.130
Royalty	.324	.346	.377	.481
Income Tax	1.175	1.263	1.379	1.780
Tax-paid cost	1.629	1.739	1.886	2.391
Additional cost of government owned crude bought back				.048 <sup>c</sup>
Freight to U.S. East Coast				.900 <sup>d</sup>
Delivered cost to U.S. East Coast, ex-duty				3.339 <sup>e</sup>

a. Assumes average dollar devaluation of 9%.

b. Assumes average annual price increase of 5%.

c. Based on maximum amount of "phase-in" crude which private companies are obligated to buy back.

d. The U.S. Maritime Administration gives a range of \$.89-.95 per barrel (see note 14).

e. Figures of U.S. Gulf and West Coast are of similar order of magnitude.

Source of basic data: U.S. Department of the Interior, Office of Oil and Gas, "Worldwide Crude Oil Prices," Second Report, Summer 1972 (Technical Report P3-6-72), Tables I and VIII.

12. The index of world export prices of manufactured goods, total, rose at an average rate of slightly over 3% during the past decade but the increase accelerated since 1969 to about 7%. See Economic Report of the President, Table C-93, 300 (Jan., 1973).

13. Petroleum Press Service, 44-46 (Feb., 1973).

allocated the additional cost of this crude over the total volume taken by the private companies.

7. Transportation costs to the U.S. will approximate those calculated recently by the U.S. Maritime Administration.<sup>14</sup> The estimates assume shipment of Eastern Hemisphere oil in foreign flag tankers of 250,000 DWT to terminals off the East Coast of the United States or Canada with transshipment in smaller vessels to U.S. refineries. We have stayed with the 1970 cost figures, rather than to assume continuous cost escalation, as the Maritime Administration does, or a dramatic downward shift in tanker costs, as the Oil Import Task Force had assumed.<sup>15</sup>

On this basis, the tax-paid cost of Arabian (34°) crude in 1980, f.o.b. Persian Gulf, would be about \$2.39/bbl., and the adjusted cost, including the cost of buy-back crude, about \$2.44/bbl. Adding 90¢ transportation costs gives a landed cost, ex-duty, of about \$3.34 for an average barrel.

No separate estimate has been made for the cost of imports from Western Hemisphere sources. If economic forces were able to exert themselves freely, their landed cost would approximate that of the Middle East, where supplies are freely available in adequate volume. Actually, because of security considerations, Canadian and Venezuelan oil may be imported even if their cost is somewhat higher. Thus, using the cost of Middle East oil as representative of all imports may understate the cost of foreign oil from all sources. In view of the prospective dominance of Eastern Hemisphere oil and the availability of better data for that source, we have used the landed cost of Middle East crude as representative of the cost of all U.S. oil imports. For

TABLE 3  
Estimated Cost of U.S. Oil Imports in 1980

Source	Volumes		Costs <sup>a</sup>
	Million barrels p.d.	Million barrels p.a.	Billion dollars p.a.
Canada	1.1	403	1.35
Latin America	1.9	695	2.32
Eastern Hemisphere	7.6	2,782	1.29
Total	10.6	3,880	12.96

a. At \$3.339/bbl., as explained in the text. (Details of Middle East calculation in Table 2).

14. U.S. Department of Commerce, Maritime Administration, *The Economics of Deepwater Terminals*, Appendix I (1972).

15. Cabinet Task Force on Oil Import Controls, *The Oil Import Question*, Appendix E 247 (Feb., 1970).

1980, based on the volumes shown in Table 1, the total cost of imported oil amounts to \$13 billion.

A number of simplifying assumptions should be pointed out. We assume all shipments to be made at tax-paid cost, which implies that they originate with U.S. companies or possibly state agencies. Imports by companies of other nationalities would carry a somewhat higher foreign currency content since the profit element would be transferred to third countries. Landed costs of crude from sources other than the Middle East are assumed to be comparable to those of Persian Gulf crudes.<sup>16</sup> No separate analysis has been made of possible cost differences of importing residual fuel oil or other finished products. If imports should include a large volume of products, especially the lighter and more valuable ones like gasoline, the figures would need to be adjusted upward somewhat.<sup>17</sup> Finally, we have not included the cost of importing natural gas, by pipeline overland or by tanker in liquid form, primarily because any major expansion of these imports by 1980 is as yet uncertain.<sup>18</sup>

#### BALANCE OF PAYMENTS IMPLICATIONS

The estimated cost of U.S. oil imports of \$13 billion in 1980 is substantially smaller than an estimated \$18 billion value of oil imports for the same year, which corresponds to the \$25 billion 1985 Department of Commerce figure cited earlier. Further, as we shall explain below, even the \$13 billion represents a considerable overstatement of the balance of payments impact of U.S. oil imports in 1980.

In this section we will concentrate on the balance of payments costs associated with rising petroleum imports, emphasizing shipments from the Eastern Hemisphere. Rough estimates for Canada and Latin America are made, but imports from Canada and Latin America are both lower in volume and will grow at an appreciably slower rate than those from the Eastern Hemisphere. In addition, cost estimates for Canada and Latin America are more tenuous than those for the Eastern Hemisphere, and a much higher proportion of earnings of companies in Canada and Latin America are spent on U.S. exports. Thus, balance of payments estimates for these two areas will be both less reliable and less significant than estimates for the Eastern Hemisphere, which is the focus for this study.

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16. National Petroleum Council, *supra* note 3. The Council shows landed cost per barrel of crude from other sources as ranging between \$3.57 and \$4.00/bbl. (p. 306). The figures, however, are not comparable because of basic differences in assumptions from those made here.

17. The National Petroleum Council's estimate of the landed price of residual fuel oil in 1975 and subsequent years is \$4.34/bbl. That of other products is \$5.00.

18. The additional (gross) value of gas imports in 1980, based on N.P.C. volumes and prices (3.75 trillion cubic feet at 82.5¢/MCF) is slightly over \$3 billion.

### *Balance of Payments Costs of Imports*

A traditional approach to determining the balance of payments impact of petroleum is to attempt to measure all payments and receipts associated with these imports. These would include the cost of petroleum imports plus capital exports associated with these imports, offset by income on petroleum investments and U.S. exports associated with petroleum production abroad. This approach starts with a measurement of total (gross) payments on petroleum imports and adds various adjustments for other financial transactions associated with these imports. Our approach differs somewhat from this traditional one. By utilizing a concept of actual costs to the oil companies handling the oil shipments, as developed in Table 2, we have a measurement of the impact of U.S. oil imports on the U.S. economy. Since the figures are based on costs, it is unnecessary to estimate either profit margins or the complex sector of capital transactions, except for new capital directly associated with expansion of production for U.S. imports.

The present approach has the advantages of conceptual simplicity and reduced margin of error, since both earnings and capital transactions can be notoriously unstable, and thus difficult to estimate. For the purpose to which we use it here, i.e., determining the cost of an incremental volume of oil shipments in a situation where the resource is established and development costs tend to be both low and stable, it provides results which are an acceptable approximation of those obtained by the much more elaborate methods. Only one adjustment is needed in order to compensate for growing capital requirements under conditions of rising production and exports.

The other international payments element associated with the import of oil is the cost of freight. All expenditures on freight are assumed to be expenditures to foreigners leading to an outflow of dollars. Thus, freight costs of 90¢ per barrel are balance of payments expenditures.

The adjustment for capital movements arises because capital exports from the United States, to the extent that they are required to support higher levels of Eastern Hemisphere oil production, constitute balance of payments expenditures for the United States. Because these expenditures are expected to be rising, they would not be fully offset by depreciation and other writeoffs included in production costs included in our cost figures. It is likely, at least in established producing areas like the Middle East, that these expenditures will be largely financed out of current earnings, and will not represent completely new outflows of capital from the United States. However, to the extent this is the case, they still would result in a reduction of

retained earnings of U.S. branches, and thus reduce amounts remitted back to the United States.

It is unlikely that the full impact of the expansion will fall on the U.S. economy. Capital markets in Europe and Japan may furnish a portion of the financing required for expanded Middle East facilities. Also, with the host countries expected to attain substantial participation during the 1970's, they would at least indirectly finance some portion of development programs out of their oil receipts. In any event, the oil producing companies may be expected to try to hold the drain on their parents' resources to a minimum.

We have assumed, somewhat arbitrarily, that one-third of the total capital expenditures will result in net dollar payments by the United States economy; one-third will be from non-U.S. sources, and one-third will represent exports of U.S. goods and services, which would balance an equivalent capital out flow. If one accepts the Task Force estimate of capital costs of \$275 per daily barrel for the Middle East,<sup>19</sup> then the balance of payments costs to the United States of capital expenditures to increase exports of Eastern Hemisphere oil to the U.S. from the 1970 level of .6 million barrels per day to the 1980 level of 7.6 million barrels per day will be \$.64 billion for the entire period. For 1980, we indicate an amount of \$.06 billion, on the assumption that the expansion will occur evenly over a decade. This amount is so slight that it hardly warrants a revision of the cost of Eastern Hemisphere oil imports of \$9.3 billion in 1980 previously established.

### *Induced Expenditures*

The additional \$9.3 billion accruing to Eastern Hemisphere countries for oil production and ocean freight is in part returned to the United States in payment for goods and services. For the Middle East, the Task Force estimated the proportion of this return flow in the relatively short run at about 0.2. Over a longer period this was estimated to increase to about one-third.<sup>20</sup> Using this latter figure, because expenditures in any one year will reflect a cumulative process, of the \$9.3 billion expenditure on petroleum imports, approximately \$3.1 billion will be returned to the U.S. by purchases of its exports. Thus, the net balance of payments cost to the United States is \$6.2 billion.

Some might consider it appropriate to consider expenditures on U.S. exports by third countries which export goods and services to the oil producing countries, experience rising incomes, and increase

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19. The Oil Import Question, *supra* note 15, as Appendix H, 277.

20. *Id.*, at 282, 288.

expenditures on U.S. exports. There is considerable difficulty in specifying the amounts and timing of such third party expenditures. Also, the levels of these expenditures are highly dependent on changes in levels of incomes and prices in these countries compared with the U.S., and are determined more by balance of payments adjustment processes than by any relationships which can be specifically related to changing levels of petroleum exports.

### *Canada and Venezuela*

While this paper considers primarily the balance of payments impact of petroleum imports from the Eastern Hemisphere, to keep in perspective the overall dimensions of the problem rough estimates have been made of the impact of U.S. petroleum imports from Canada and Latin America. The principal adjustment that must be made from the previous analysis is to recognize the higher capital costs associated with expanding capacity in Canada, a much slower rate of growth of petroleum exports from the Western Hemisphere, and a much higher propensity to spend foreign exchange receipts in the U.S. (approximately .5 for Venezuela and .7 for Canada).<sup>21</sup> Using the import volume of Table 3 and a delivered cost of \$3.3339 per barrel, the net annual balance of payments costs for imports from these two countries would be almost \$1.8 billion. From all sources, the net balance of payments impact of U.S. petroleum imports would be \$8.0 billion.

### *Balance of Payments Adjustment*

There is nothing inherent about the balance of payments impact of a substantial increase in U.S. petroleum imports. This impact will vary with the rate of increase of U.S. exports and other imports, and with the overall U.S. balance of payments position, taking into account all international transactions, including investment flows. It would be possible, for example, for a more competitive U.S. economy through expanding exports, import substitution, and rising foreign investment income to generate the earnings required to pay for oil imports. Any consideration of the balance of payments adjustment process accompanying the higher level of petroleum imports, therefore, must be cautious and tentative.

### *Adjustment in the Current Account*

While balance of payments adjustment involves all elements of the international accounts, it may be helpful to focus initially on the

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21. *Id.*, at 282, 298.

current account, which measures movements of goods and services, and then on the capital account, which records capital flows.

A surplus or deficit position in the international balance of payments is the net of the much larger flows of total trade in goods and services. These, in turn, reflect output and prices in the U.S. economy and the economies of all its trading partners. In 1971, for example, with a GNP of \$1047 billion, U.S. exports of merchandise amounted to \$43 billion, or 4% of total output. The balance on current account (exports of goods and services minus imports of goods and services) amounted to \$0.7 billion, or 2% of exports and 1/10th of 1% of GNP. Given these magnitudes, it is not prudent to attempt to specify the balance of payments adjustment implied by rising petroleum imports. If the international position of the U.S. is weak from other forces in 1980, petroleum imports could tend to undermine further the value of the U.S. dollar. On the other hand, if the overall U.S. position is one of strength, there is no reason for isolating petroleum expenditures as posing a problem of balance of payments adjustment.

Attention focused on an international energy balance, in fact, is not very meaningful in economic terms. The concept, energy balance, implies that there is a rationale to equating imports and exports of energy commodities, and focuses on balance in the current account of the balance of payments. Certainly such considerations are pertinent to a discussion of national security aspects of importing oil. But based on economic considerations, principles of comparative advantage suggest that imbalance in trade of particular commodities is not only likely but desirable. Availability and costs will determine the composition of imports and exports; the meaningful question to be answered is not whether a given volume of imports of oil (or any other commodity) imposes intolerable costs on the U.S. economy; it is one of the relative costs of such imports versus the relative costs of alternative courses of action, such as accelerated development of domestic energy sources, both considered in the broad economic context of the total costs to the American economy and to U.S. consumers. In this light, if the relative cost of obtaining a resource or product from domestic sources rises significantly, it may well be appropriate for a country to import a larger proportion of this item from abroad, and to pay for such imports with exports of other items in which it continues to hold a comparative advantage to the same country or third countries. Greater oil imports not only could, but probably should, be financed by greater exports of agricultural products, to mention one logical group of candidates.

Petroleum imports will constitute a larger proportion of total

imports in 1980 than in 1971. If U.S. exports and imports grow at an annual rate of 8%, as has been the case during most of the post-World War II period, U.S. trade will approximate \$85 billion in each direction by 1980. At \$13.0 billion, oil imports would be 16% of total imports by that time; in 1971 the proportion was 6%. The principal implication for the U.S. balance of payments is that a growing segment of U.S. imports will be relatively price inelastic; thus imports will be less responsive to balance of payments policies aimed at a reduction in imports through more stable domestic prices or devaluation of the dollar relative to other currencies. In addition to the price inelasticity consideration, it seems likely that the oil exporting countries of the Eastern Hemisphere will continue to insist on pricing and taxation arrangements which will compensate for any decline in the exchange value of the dollar.<sup>22</sup> A growing and major component of U.S. imports will be relatively unresponsive to either commodity price changes or exchange rate changes.

Overall, however, given the values projected by this study, it would appear reasonable to expect that the current account of the U.S. balance of payments can absorb and adjust to the rising level of petroleum imports. The reforms of the international monetary system currently being instituted and contemplated will further ease this adjustment process by introducing more flexible exchange rates. Adjustment can proceed, however, even with relatively fixed exchange rates, given the magnitudes and time period involved.

#### *Adjustment in the Capital Account*

One potential means of easing the burden on the U.S. economy resulting from increased energy imports is for the oil exporting countries to save a considerable proportion of their growing foreign exchange receipts. The higher the resulting rate of saving, the less the pressure on the current account of the U.S. balance of payments; fewer goods and services need be exported to pay for petroleum exports.

The precise magnitude of the future savings ratio in the major Middle East oil exporting countries is difficult to predict. Export expansion is likely to be concentrated in Saudi Arabia, the country with the largest proved oil reserves,<sup>23</sup> and Iran, the most populated.

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22. Middle East oil prices were increased by 8.49% in January, 1972, in the wake of the devaluation of the U.S. dollar under the so-called "Geneva Agreement." A second increase, reportedly about 9%, is scheduled to take effect in March 1973, following the dollar devaluation and other currency adjustments of February.

23. Saudi Arabia and Iran are the only producing countries where both resource base and policy appear to be conducive to major long-term expansion of production. In several others, limited oil reserves or abundant financial liquidity have already led to limitations on production increases.

Because of its large absorptive capacity and ambitious development plans, Iran is not likely to be confronted with embarrassing accumulations of foreign currencies in the foreseeable future. To the contrary, its growing demands for foreign exchange have generated pressures for rapid expansion of oil production and exports. This is not the case with Saudi Arabia, however. Even during the 1960's, prior to the sharp increases in oil prices and government payments, that country saved about 10% of its foreign exchange receipts.<sup>24</sup> Given the rapid expansion of income which will be earned from Saudi petroleum exports, one might expect that the propensity to save would increase considerably from the level of the past decade. It would be easy to overestimate the rate, however. Saudi Arabia will become more experienced in the planning and execution of development projects. Petroleum income will continue to be used to subsidize the consumption of the general population. Given the resource base of Saudi Arabia, it is quite appropriate for government petroleum income to finance consumption through imports of goods and services. Oil receipts in Saudi Arabia represent over 90% of government income, and the government's budget increased by almost 25% this past fiscal year. Thus, the increase in the rate of saving might be limited by substantial increases in expenditures. But the rate of saving certainly will increase over the next decade.

The critical question will then be how such countries as Saudi Arabia will utilize their accumulated dollar balances. From a U.S. balance of payments point of view, adjustment would be greatly facilitated if a large portion of dollars not spent on current imports were invested in long-term U.S. securities, or were directed into private investment in the United States. The principal alternative, channeling funds into the Eurodollar market and other security markets in Europe and Japan, would contribute to the weakness of the dollar. The experience of the past two years demonstrates that foreign exchange holdings of Middle East countries can constitute an unstable element in international financial markets. Any subsequent reorganization of the international monetary system must include provisions for coping with currency movements of this type.

From this perspective, there appears to be a complementary relationship between the prospective availability of large investment funds in the Middle East, on the one hand, and the need for large new energy facilities (and the means of financing them) in the United States, on the other. Whatever noneconomic reservations U.S. policy makers may have over such partnerships, these must be evaluated in the light of the likely alternatives. Apart from a huge overhang of

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24. The Oil Import Question, *supra* note 15, at 283.

additional Eurodollars there would appear only one other: the oil would not be produced and thus would not be available to help relieve the U.S. energy shortage.

### CONCLUSION

In terms of the balance of payments of the United States, the principal implication for the U.S. is that it must pay for imports of resources worth \$8.0 billion. This means that additional resources must be exported from the U.S., that other imports must be reduced, or that resources must be transferred to the U.S. in the form of investments. If additional exports, import-substitution or capital inflow are not forthcoming, the result will be an outflow of dollars which will weaken the international value of the dollar.

The degree to which the U.S. is able to provide the necessary resources for these purposes depends upon the competitiveness of the U.S. economy relative to that of its major trading partners. Given the relative weakness of the U.S. trade position over the past decade, it would be easy to regard the \$8.0 billion oil import bill with great concern. However, one should not project ahead and presume international economic conditions in 1980 will closely resemble those of today. During the 1950's the international literature presumed that the U.S. economy was sufficiently strong that international monetary affairs would be characterized by dollar shortage, with other countries not being able to obtain the dollars they desired for imports and capital investment. This view was replaced rather quickly in the early 1960's by a concern with dollar glut, citing the outflow of dollars accompanying U.S. balance of payments deficits. There is little reason to believe that today we can look ahead eight years and anticipate the balance of payments position of the U.S. any better than we have in the past. A higher volume of petroleum imports will be only part of a changing pattern of U.S. foreign trade, both in exports and imports. Unless one can demonstrate that rising petroleum imports will not be offset by favorable trade developments, there is no reason for believing that these imports will pose an intolerable strain on the value of the U.S. dollar. With a much larger GNP and a volume of trade approximating \$85 billion in each direction, it would seem to be well within the capacity of the U.S. to adjust to the projected rise in oil imports.

Many economists advocate that the best adjustment process is an international monetary system of fluctuating exchange rates. Under such a system, rising petroleum imports would tend to reduce the international value of the dollar and help to stimulate U.S. exports and make foreign goods more expensive to U.S. consumers. Recent

reforms have introduced greater flexibility in exchange rates, although it is still limited by concern in other countries for their own trading position in such a system. To the extent that such degree of flexibility is retained in the new international monetary system which may emerge, it will facilitate adjustment of the U.S. payments position to rising petroleum imports.

The emphasis of this paper has been on the costs of a substantial increase in petroleum imports. A full assessment of the impact of rising imports is possible only when the costs of alternative policies to equate energy supply and demand is considered. The principal alternative—development of domestic energy sources, probably at significantly higher cost—will have balance of payments repercussions, too, because the resulting higher domestic prices for energy will be reflected in the overall cost structure of U.S. industry. These costs would be very difficult to estimate and translate into overall price changes, but they, in turn, would have balance of payments consequences of some magnitude. However difficult they are to measure, these costs must be recognized and compared with the costs of an increased reliance on foreign oil. Rising petroleum imports will pose problems of balance of payments adjustment, but the adjustment process is not likely to be an unmanageable one.