PERSONAL AND
RICTLY CONFIDENTIAL

NOT FOR PUBLICATION
EITHER IN WHOLE OR IN PART

BILDERBERG MEETINGS

SALTSJÖBADEN CONFERENCE

11-13 May 1973

CONTENTS

LIST OF PARTICIPANTS

CHAIRMAN:
H.R.H. The Prince of the Netherlands

HONORARY SECRETARY GENERAL FOR EUROPE:
Ernst H. van der Beugel

HONORARY SECRETARY GENERAL FOR THE UNITED STATES:
Joseph E. Johnson

HONORARY TREASURER:
C. Frits Karsten

Agnelli, Giovanni	Italy
Anderson, Robert O.	United States
Ball, George W.	United States
Baumgartner, Wilfrid S.	France
Bennett, Sir Frederic	United Kingdom
Beyazit, Selahattin	Turkey
Birgi, M. Nuri	Turkey
Bjøl, Erling	Denmark
Björgerd, Anders	Sweden
Boiteux, Marcel	France
Breuel, Birgit	Germany
Brzezinski, Zbigniew	United States
Bundy, William P.	United States
Cittadini Cesi, Il Marchese	Italy
Collado, Emilio G.	United States
Dean, Arthur H.	United States
Drake, Sir Eric	United Kingdom
Ducci, Roberto	Italy
Girotti, Raffaele	Italy

Granier de Lilliac, René	France
Greenhill, Sir Denis	United Kingdom
Griffin, Anthony G. S.	Canada
Haagerup, Niels J.	Denmark
Hallgrimsson, Geir	Iceland
Healey, Denis	United Kingdom
Heinz II, Henry J.	United States
Høegh, Leif	Norway
Houthuys, Jozef	Belgium
Janssen, Daniel E.	Belgium
Kersten, Otto	International
Kohnstamm, Max	International
Lapham Jr., Lewis H.	United States
Lehto, Sakari	Finland
Lennep, Jonkheer Emile van	International
Levy, Walter J.	United States
Lied, Finn	Norway
Lombardini, Siro	Italy
Luns, Joseph M. A. H.	International
Lougheed, Peter	Canada
Macdonald, Donald S.	Canada
Maudling, Reginald	United Kingdom
Merlini, Cesare	Italy
Mettler, Erich	Switzerland
Moyers, Bill D.	United States
Newhouse, John	United States
Owen, David	United Kingdom
Palme, Olof	Sweden
Perkins, James A.	United States
Philips, Frits J.	Netherlands
Ritchie, Albert E.	Canada
Roll, Sir Eric	United Kingdom
Rothschild, Baron Edmond de	France
Rozemond, Samuel	Netherlands
Schmidt, Helmut	Germany
Seydoux de Clausonne, Roger	France
Simon, John M.	United Kingdom
Smith, Gerard C.	United States
Snoy et d'Oppuers, Baron	Belgium
Sommer, Theo	Germany

Spaak, Fernand	International
Stehlin, Paul	France
Stille, Ugo	Italy
Stoltenberg, Thorvald	Norway
Stone, Shepard	United States
Sträng, Gunnar	Sweden
Taverne, Richard	United Kingdom
Terkelsen, Terkel M.	Denmark
Tidemand, Otto G.	Norway
Udink, Berend J.	Netherlands
Umbricht, Victor H.	Switzerland
Wagner, Gerrit A.	Netherlands
Wallenberg, Marcus	Sweden
Wickman, Krister	Sweden
Wilson, Carroll L.	United States
Wischnewski, Hans-Jürgen	Germany
Wolff von Amerongen, Otto	Germany

IN ATTENDANCE:

Svensson, Nils	Sweden
Lindgren, Hugo	Sweden
Vernède, Edwin	Netherlands
Getchell Jr., Charles W.	United States

INTRODUCTION

The twenty-second Bilderberg Meeting was held at the Grand Hotel Saltsjöbaden in Saltsjöbaden, Sweden, on 11, 12 and 13 May 1973 under the chairmanship of H.R.H. The Prince of the Netherlands.

There were 80 participants, drawn from a variety of fields: government and politics, universities, journalism, diplomacy, industry, transport, trade unions, the law, banking, foundation administration and military service. They came from thirteen Western European countries, the United States, Canada and various international organizations.

In accordance with the rules adopted at each Meeting, all participants spoke in a purely personal capacity without in any way committing whatever government or organization to which they might belong. To enable participants to speak with the greatest possible frankness, the discussions were confidential, with no reporters being admitted.

The Agenda was as follows:

I. The Possibilities of the Development of a European Energy Policy, and the Consequences for European-North American Relations.

II. Conflicting Expectations Concerning the European Security Conference.

At the opening of the meeting, H.R.H. The Prince of the Netherlands read a telegram of thanks and good wishes which he had sent to H.M. Gustav VI Adolf and the reply which he had received from the latter.

His Royal Highness expressed his regret at the absence of Professor John Pesmazoglou, whose request for permission to leave Greece had been denied, and of Mr. Gerhard Schröder of West Germany, whose political commitments had prevented him at the last moment from attending.

After recalling the Bilderberg rules of procedure, The Prince turned to the first item of the Agenda.

THE POSSIBILITIES OF THE DEVELOPMENT OF A EUROPEAN ENERGY POLICY, AND THE CONSEQUENCES FOR EUROPEAN-NORTH AMERICAN RELATIONS

The background for discussion of this topic consisted of two working papers – one written by an International participant, the other by an American participant – which had been distributed before the meeting. These papers, and the comments of their authors in introducing them to the meeting, are summarized below.

•

• •

GUIDELINES FOR A EUROPEAN ENERGY POLICY AND ITS CONSEQUENCES ON RELATIONS BETWEEN EUROPE AND NORTH AMERICA

The International author of this working paper began by pointing out that there was fairly widespread agreement as to why the energy situation was alarming. The relevant figures were generally known, and diagnoses of the energy trend differed little. The problem was what treatment to apply: we needed an effort of imagination to avoid lapsing into fatalism, and a strong sense of realism to guard against a Utopian approach.

In this spirit, he proposed to examine the guidelines of a common energy policy for the European Community, and then to consider how the main energy-consuming countries might cooperate with one another.

I. *The Community energy policy*. Mapping out a Community energy policy was a long-term task. So far it had produced a limited number of specific measures, but a new impetus was called for now, inspired by an overall vision.

A. *Gradual materialization of the Community energy policy*

Since the ECSC and Euratom treaties had dealt specifically with coal and nuclear energy, the Rome Treaty contained no special provisions for energy as it did for agriculture and transport. This omission was explained in part by the fact that energy was plentiful and readily available.

During the first decade of the Rome Treaty, however, the idea of a common energy policy had gradually taken shape, and by 1968 a detailed inventory had been drawn up of the principles and objectives which should guide European activity in the energy field. This had been followed by various specific measures aids for coal; the regulation obliging member states to accumulate oil stocks equivalent to 65 days' use; and the systematic use of economic reports and forecasts.

More recently, the development of the Community energy policy had been marked by proposals for the extension of the joint enterprise system to the hydrocarbon sector, the setting up of European uranium enrichment facilities, the increase of compulsory oil stocks from 65 to 90 days, the introduction of a harmonized system to combat the effects of momentary interruptions in supplies, and the establishment of import arrangements for hydrocarbons.

B. *Fresh impetus for the Community energy policy*

The enlargement of the Community offered numerous areas of activity in which greater European initiative could be developed, including the energy sector.

1. *The reasons.* During the past two or three years, a new attitude to energy problems had emerged, both within the Community and in the world at large. There were many reasons for this, ranging from the increasingly effective way in which the oil producing countries were directly influencing energy patterns, to concern about energy industries' respecting the environment, and finally to anxiety about the world's energy supplies toward the end of this century. Although energy problems were still closely bound up with technical and economic factors, they were increasingly colored by political considerations.

The European Community, heavily dependent on the outside world for its energy supplies, could not evade the problem without imperiling its own subsequent development. It was therefore encouraging that the participants in the Paris summit meeting of October 1972 had asked the Community institutions to draw up an energy policy to ensure reliable long-term supplies on satisfactory economic terms. The Commission's main present concern – as its latest proposals showed – was the question of supplies.

2. *New objectives of the Community energy policy.* Progress in developing the

Community energy policy would require systematic attention to the major problems arising from present trends; recognition of the priority of supply strategy; and equipment of the Community institutions with certain means of control.

(a) *General problems.* No energy policy could be conceived today which did not encompass these aims:

(i) respect for the environment through research projects to combat pollution caused by the production, transport, storage and consumption of energy, these projects to be incorporated in the Commission's general plan of action on the environment;

(ii) more rational use of energy to reduce the problems of supply and environmental protection and offset the potential increase in energy costs;

(iii) research to achieve more efficient production and use of energy, and to discover new sources of energy, new resources, or ways of using resources already known;

(iv) developing contacts between the Community and other energy importing countries with a view to better mutual information and the adoption of joint solutions;

(v) improving economic and social cooperation with the energy exporting countries to promote the aim of stable relations between equal partners.

(b) *Priority measures on supplies.* The Community's main energy problem was to ensure reliable supplies in an increasingly uncertain market. Therefore, the energy supply trend had to be carefully watched and, if necessary, directed from a Community standpoint. Apart from the problem of financing very considerable investments, this meant that the Community had not only to supervise the conditions of competition but also to be able to influence the competitive positions of the various forms of energy. Concrete measures were most pressing in these fields: *

Mutual information – The information which had been obtained on imports of hydrocarbons, on investments, and on foreseeable trends in these two fields, had to be supplemented by information on prospecting for hydrocarbons, on the gas industry and on uranium reserves and resources. This would give the Community a better idea of the prospects offered by the large hydrocarbon reserves in the North Sea.

Reliable supply sources – An urgent decision was needed on the implementation of a new system of aids to coking coal to help maintain its production in the Community. The problems of maintaining a coal consumption capacity in power plants also had to be studied, as part of a general policy for power plant fuel supplies. The existence of a major coal industry in Great Britain made this especially important.

With regard to hydrocarbons, the object ought to be to encourage prospecting on Community territory or territories considered as reliable, and if not to establish the principle of Community priority for supplies of natural gas tapped from its own soil, including the continental shelf, then at least to prevent national export restrictions contrary to the Treaty of Rome.

As regards nuclear energy, it would be necessary to make use of the facilities offered by the treaties and to adopt measures on nuclear fuel supplies, and especially the establishment of European uranium enrichment plants.

Measures to overcome supply difficulties – In addition to preparing concerted measures to be taken when oil crises occurred, it was important to continue developing a Community policy on the stockpiling of oil products. Concrete proposals were also needed on the stockpiling of Community or imported coal, and of fuels for conventional power plants and natural or enriched uranium.

Smooth functioning of the common market – This could not be ensured without first solving certain general problems, such as the liberalization of public works contracts, the notification of intended mergers, and direct and indirect taxation in the energy sector.

For oil, it would be necessary to harmonize price arrangements and to remove technical obstacles to trade. In the electricity and nuclear energy sectors, there had to be better coordination of national development programs and of safety criteria and technical standards, as well as of the location of power plants and the awarding of electricity licences. Finally, national and Community regulations on nuclear plant safety had to be harmonized.

Structure of the energy industry – A considerable step forward would be achieved here with the notification of intended mergers and the solution of problems connected with direct taxation. Information about new investments would enable the Community to follow the structural development of the energy industry.

Common import arrangements – The Community had rapidly to establish import arrangements for oil products and a definition of their origin. The implementation of procedures would depend on particular market conditions.

(c) *Establishment of Community means of control.* To keep fully informed about the energy market, the Commission was – in addition to the ways and means already enumerated – now setting up a system of regular price surveys for the various energy products. The Community also had to be empowered to coordinate national measures (existing and proposed), and to harmonize scientific and technical research. Finally, the Commission had already presented the regulation on joint hydrocarbon undertakings which should encourage major research schemes in the hydrocarbon sector or oil stockpiling projects, thus helping to solve supply problems and to establish the common market.

The emphasis laid on the way in which the Community energy policy was conceived should not lead us to neglect the Community's energy relations with the other energy consuming countries. That, together with the Community's relations with the energy exporting countries (not discussed in this paper), constituted one of the principal factors at issue.

II. *Energy cooperation between the Community, the US and Japan*

A. *The reasons for cooperation:* Chief among these was the fact that the Community, the US and Japan were all dependent, at least in the medium term, on other countries for their energy supplies, with all the economic, political and security problems that this implied.

Because of the increasingly global scale of the energy supply question, all individual efforts to improve a pattern of supply required consultation with the other major importing regions. Governments of the consumer countries could no longer escape the responsiblility of ensuring reliable energy supplies. And if they did not cooperate, this responsibility would lead them to competitive bidding and finally into a clash.

The task of improving relations between energy importing countries should begin with consultations between Europe, the US and Japan. These three regions, which represented about 60 per cent of world energy consumption, accounted for an even greater proportion of world trade in energy products, as they absorbed 80 per cent of world energy exports.

Two other reasons for cooperation were bound up with the world responsibilities of these countries. First, an energy crisis or an increase in energy costs could irremediably jeopardize the economic expansion of developing countries which had no resources of their own. Secondly, the misuse or inadequate control of the financial resources of the oil producing countries could completely disorganize and undermine the world monetary system.

B. *General principles and limits of cooperation:* The European Community had already made it known unofficially that it favored energy cooperation with the US and Japan, primarily to eliminate futile outbidding between the importer countries for supplies, especially from the Middle East. The proposed cooperation could also reduce waste of financial resources on individual projects in scientific and technical research, environmental protection and rational use of energy. Moreover, it could speed up the achievement of the desired results.

Founded on the principles of non-discriminatory treatment and reciprocity of commitments, this cooperation should not inhibit the Community or lead to the unilateral dependence of Europe or Japan on the US, whose industrial power, financial strength and unity were likely to give it the dominant role in the proposed consultations. Europe should define and retain its identity, and be able to implement its own measures and make its own choices. Europe's "personality" was already apparent in its relations with the developing countries, some of which were exporters of energy, and of hydrocarbons in particular. Geography and history affected these relations, as did the awareness of the mutual benefit to be derived from an increased interdependence of the Community's markets and the developing industries of the producer countries, which was bound to serve the general interest.

However, the objective of cooperation between consumer countries should not make the Community forget its weak points vis-à-vis the US and the economic and political risks implied. The American oil companies held about a third of the European market (transport by pipeline, refining and distributing); this had hampered the development of the European companies. It would therefore be alarming if the US companies, for reasons of profitability, were led to redirect their production towards the US market. Recent American imports of low-sulphur fuel oil refined in Europe, and their impact on European prices, illustrated Europe's sensitivity to American market phenomena.

On the international level, American strategic and political commitments, both in the Middle East and along the Community's supply lines, might constitute an indirect threat to supplies of hydrocarbons to Europe. These same factors were encouraging certain countries in that region to establish privileged relations with the US, thereby prejudicing supplies to other consumer countries. This underlined the need both for close cooperation between the consumer countries and for the assertion by Europe of some political presence in the Middle East. *

Finally, in the nuclear sector, Europe was still too dependent on US technology. The situation in the fuel cycle industry was comparable, if less serious. The recent US decisions on the prices and terms of sale of enriched uranium reinforced Europe's and Japan's fears as to what might happen if there were no consultations with the US, and also as to what obligations and limits such consultations should involve.

On the other hand, the proposed consultations should not look as if they were creating a bloc of energy importing countries as against the bloc of energy exporting countries, and even less as if they were a defensive reaction of the industrialized countries. It had to be made clear that, although this cooperation was designed to improve the conditions of supply of the consumer countries, it was aimed above all at stability and controlled development, for the benefit of both exporting and importing countries. Furthermore, this cooperation should not prevent the establishment of more favorable relations between consumer and producer countries, which could be achieved, for instance, by a kind of commodity agreement on energy between all concerned; this would particularly favor the expansion of the developing countries with no energy resources and the stabilization of the international monetary system.

C. *Areas suitable for consultations between the Community, the US and Japan.* Consultations should be as diversified as possible and could embrace nearly all aspects of energy policy.

1. *The objectives of cooperation.* The main concern of energy policy now was not so much cost as the assurance of reliable long-term supplies, capable of adjusting to the expected increase in demand. The question was thus how to try to avert crises and how to cope with them if they occurred. *

Coping with temporary interruptions in supplies required close consultation between the Community, the US and Japan concerning the creation and use of emergency stocks, aimed at a harmonized rationing system and perhaps a provisional pooling of transport facilities and available resources. *

Crises could be avoided both by improving the present rules of the game and by modifying the factors in a short-term economic situation marked by excessive dependence on certain hydrocarbon producing countries. The rules of the game would be improved by increased consultation between governments, and between governments and companies, when a crisis threatened. With producing countries now holding fundamental responsibilities in the oil sector, the governments of the importing countries had to be more fully informed of the intentions of the companies before and during any negotiations. It was no longer tolerable that negotiations should be conducted without the participation of the consumer countries which bore the ultimate consequences. Through close consultations, the producer countries would be clearly informed of the responsibility assumed by the consumer countries, which would facilitate the position of the companies. *

The risk of crises would also be reduced by consultations among the energy consuming countries leading to greater diversification of resources and the development of new sources of energy, for example by encouraging prospecting on the ocean floor and the continental shelf, and by harmonizing scientific and technical research projects. Such cooperation might often imply direct governmental financial assistance.

Finally, the development of coherent and better defined energy policies, through consultations between the Community, the US and Japan, would help to clarify the situation and reduce the risks of crisis.

2. *Procedures for cooperation.* Cooperation could take the form of systematic exchanges of information, harmonization of energy policies where necessary, and specific cooperation projects.

(a) *Information exchanges* were especially important on the following subjects:

- the current energy situation and estimated trends, including periodic joint reports;
- the results achieved by public bodies and private industry in their efforts to develop energy resources;
- any specific problem which could be more easily solved by joint action of the energy importing countries;
- measures taken or planned which might alter the supply situation, including the structure of the energy industry and market operating conditions.

(b) *Harmonization of energy policies* of the Community, the US and Japan should be sought. On the domestic side, common safety standards could be envisaged for energy plants, especially in the nuclear sector. Similarly common specifications could be adopted for products, notably the maximum content of noxious substances, which would help solve environmental problems and avoid difficulties on consumer markets. Finally, harmonized compulsory stockpiling policies and concerted arrangements for rationing, administering and allocating available resources when necessary, should be an excellent way of coping with crises. With regard to external energy policies, some degree of harmonization would prevent the Community, the US and Japan from engaging in unbridled competition and futile outbidding in the scramble for oil.

In cooperation with the companies concerned, the public authorities should consult each other on the supply policies they intended to pursue in the various regions possessing energy resources. The advantages of such consultations were obvious but the practical procedures might be difficult: it was hard, for instance, to imagine any rigid allocation of resources between the main importing regions now that these resources were increasingly controlled by the producer countries. At all events, no consultations should be undertaken without the governments of our countries first adopting a common attitude towards the oil companies, and the means to ensure that this attitude was respected.

Finally, with an eye to future negotiations between the producer countries and the companies, particularly on the question of taxation, the Community, the US and Japan should at least coordinate the instructions which they would then be giving the companies.

(c) *Specific cooperation measures*, reaching beyond the exchange of information and harmonization of energy policies, would be possible in certain fields, such as environmental protection, the rational use of energy, and scientific and technical research, (e.g., desulphurization, automobile emissions, processes for improving output or reducing consumption; coal gasification; nuclear explosions for storage purposes; and use of new resources).

To meet the need for larger and more diversified hydrocarbon resources, we should also envisage cross-financing for oil prospecting on the continental shelf and ocean floor, either in the countries concerned (North Sea, US or Japanese continental shelf areas) or elsewhere (Canada, Venezuela, USSR).

Finally, cooperation was needed above all in nuclear energy, to improve its reliability and to give it a more prominent place in the pattern of supply. Joint efforts were possible in numerous fields, the main ones being reactor safety, uranium enrichment, construction of breeder reactors, and the possibilities of fusion and the use of nuclear energy for non-electrical purposes.

(d) *The framework for energy consultations between the Community, the US and Japan*, if it were to be effective, would have to be flexible and to allow maximum contact. Consultation procedures would be too diversified for an institutional framework to be immediately useful, but it would take its own shape with time.

It was clear, though, that cooperation had to be accompanied and guided by advice from energy producing and energy consuming circles in our various countries. It had also to be based on contracts among the industrial circles of our countries which, with financial, technological and research facilities at their disposal, were in practical daily contact with reality.

With regard to relations between the public authorities, a body should be set up for periodic policy consultations between the energy officials of the Community, the US and Japan.

Finally, energy cooperation should fit into a context of more general consultations covering monetary matters, world trade and certain aspects of foreign policy. These general consultations between the Community, the US and Japan were an ambitious undertaking, in which energy consultations – because of their urgency and the apparent widespread agreement thereon – could constitute one of the cornerstones.

*

* *

In introducing his paper, the author alluded to the prospects for agreement in the near future by the member governments of the European Community (EC). He felt that a consensus would soon emerge on the need for cooperation with other principal consuming countries, notably the US and Japan, in order to avoid overbidding for crude oil, to accelerate research on new resources and on fuel efficiency, and to be able to deal with a fuel crisis.

This cooperation should be based on certain fundamental principles: equality among partners, non-discrimination, respect of mutual engagements, avoidance of the bloc approach, and recognition of the needs of the developing countries. The experience of the OECD should make it a useful forum in which to begin this Atlantic-Japanese collaboration, although its procedures might have to be revised.

In its relations with the producing countries, it was important that the EC be seen by them, not as a hostile bloc, but as a trading partner with whom there was a relationship of mutual interdependence. To enhance its credibility as a partner, Europe needed to wield better control over oil imports, supply costs and prices. In addition, the oil companies had to keep the European public authorities better informed about their plans for imports, investments and crisis management.

With regard to other energy sources, Europe ought to review its coal reserves – by regions rather than on a national basis – to see where coal might again be competitive on price with oil. Natural gas was another excellent energy source if used efficiently (i.e., not in electric power plants) and conservatively, so as not to provoke export restrictions. Its distribution in Europe would be improved by more pipeline construction. Finally, a European capacity for uranium enrichment was needed for the development of nuclear energy.

The author observed that efforts to improve the environment seemed, initially at least, to increase fuel consumption rather than slow it down. But an effort in this field had to be made on the Community level, as national programs tended to disrupt the distribution and consumption of energy.

*

*   *

AN ATLANTIC-JAPANESE ENERGY POLICY

I. *Summary*

The conclusions of the American author of this working paper could be summed up as follows:

The prosperity and security of the free World depended on sufficient availability of energy on satisfactory economic terms. During the next ten to 20 years, oil would provide the mainstay of the world's energy supplies. Because of the size of known reserves and the lead time for developing new resources, our growing needs would be supplied mainly by huge increases of imports from the Middle East.

The cost of these oil imports would rise tremendously, with difficult implications for the balance of payments of consuming countries. Serious problems would be caused by unprecedented foreign exchange accumulations of countries such as Saudi Arabia and Abu Dhabi.

A complete change was underway in the political, economic, strategic and power relationships between the oil producing, importing and home countries of international oil companies and the national oil companies of producing and importing countries.

An energy policy for the oil importing countries was an urgent necessity. It could not be limited to the Atlantic nations, but had to include Japan, the Free World's second strongest economic power and one of its largest oil importers. It should also encompass South Africa, Australia and New Zealand, and should take account of importing developing countries in Latin America, Africa and Asia. But the suggestions in his paper would refer mainly to the Atlantic group plus Japan as the nations with major world influence and responsibilities.

II. *Basic Data on Energy Supply and Finance*

If present US policies and trends were left to take their course, oil shipments from abroad would advance from about 4.7 million barrels a day in 1972 to over 11 million barrels a day in 1980.

Except for the North Sea and the unknown potential in Japanese offshore waters or in other "safe" areas, America's allies had limited possibilities of developing dependable alternative supplies based on synthetic oil or gas because of their small coal, shale and tar sands resources. Even with the most optimistic estimates for the North Sea, the oil imports of Europe and Japan combined were estimated to advance during the same period from some 18 million barrels daily to 30 million.

The preponderant part of all these imports would have to come from the Middle East, whose output would rise from 18 million barrels daily in 1972, to 35-40 million by 1980. For the first time, the US would be competing with Europe and Japan for major oil supplies from the Middle East, whose share in total US oil imports would, by 1980, amount to about 50-55 per cent and in those of Western Europe and Japan to 75-80 per cent. Middle East reserves would cover these requirements, but without large new discoveries this situation would probably change during the 1980's.

The USSR was likely to remain self-sufficient in oil and other energy requirements and might continue to be a net exporter of oil and natural gas.

The total value of US net imports of energy materials, mostly oil, might easily reach $18-24 billion annually by 1980, those of Europe $23-31 billion, and those of Japan $12-16 billion – as compared with $2.3, $8.5, and $3.1 billion in 1970, respectively. Revenues accruing to Middle East producing countries could amount to $40 billion annually by 1980 – as against $9 billion in 1972 – with Saudi Arabia accounting for perhaps half of the 1980 total. In countries such as Saudi Arabia and Abu Dhabi most of these funds could not possibly be absorbed in their internal economies.

The US thus had to share with Europe and Japan the deep concern about the physical availability, the terms of trade, the balance of payments impact, and the investment and monetary consequences of heavily increased oil imports. But the US carried the additional responsibility of protecting its capability to perform its global defense commitment, especially since the Soviet Union and China did not primarily depend on external sources of energy. The US could not afford an increasing over-dependence on a handful of foreign, largely unstable, countries. This would jeopardize its security (and that of its allies) as well as its prosperity and freedom of action in foreign policy formulation. But the US had a practical alternative: accelerated development of its large domestic resource potential for conventional and synthetic hydrocarbons and nuclear energy.

If realistic action to increase domestic energy supplies were taken with utmost urgency, US dependence on energy imports by the early 1980's might be limited to 20 per cent, instead of over 30 per cent if present trends continued. That probably would not exceed the "danger" level. As of now, though, continued dependence of Europe, Japan and the US on Middle East oil appeared inevitable.

III. *Changes in the Power Structure of International Oil*

From 1946 until the late 1950's, the international oil companies – on the basis of their rich Middle East concessions and benefiting indirectly from the power of the US – had been able to supply the bulk of the energy requirements of the Free World, reasonably, freely and on favorable commercial terms.

Moreover, the US had been independent of oil imports and had possessed a sizeable reserve productive capacity from which our allies could benefit during the Iranian and the first Suez Crisis.

By 1960, when the Organization of the Petroleum Exporting Countries (OPEC) had been established, the relative power of the US had begun to decline as Europe, Japan and the USSR acquired new strength. The developing countries had also begun to play a more important role in world affairs. The establishment of OPEC and its growing influence had been due in part to the inability and inflexibility of the international oil companies and their home governments to anticipate and adjust to the changes that had begun to erode their previous influential position in oil producing countries.

From 1960 to 1972, OPEC had succeeded in achieving, to begin with, minor increases in the government take of oil producing countries, and since the early seventies in enforcing a quantum jump in the royalty and tax payments on their production. This had been capped in 1972 by the participation agreement, which meant an immediate 25 per cent interest for the Arab producing countries in the Persian Gulf in existing concessions, leading to 51 per cent control within nine years. Middle Eastern national oil companies would thus become the largest sellers of crude oil.

By 1984, most of the important Venezuelan concessions would also have reverted from the oil companies to the government. Algeria, Libya and Iraq had already taken over a substantial part of the previously foreign-owned production, and the current Indonesian contracts left the Indonesian National Oil Company free to dispose of much of the oil discovered by foreign companies.

During the same period, American reserve productive potential had begun to disappear, and by 1972 the US had become one of the largest importers of oil.

IV. *Dominant Position of the Major Oil Producing Countries*

The conclusion of the participation negotiations had left little doubt that the major oil producing countries had acquired immense potential power – as long as at least two important producers maintained a united front. Saudi Arabia alone, with its overwhelming lead in reserves and production, would have a pivotal role in supply within a few years.

The power of these countries was based not only on their control over immense oil resources, but also on their prospective command of unprecedented financial resources. Moreover, large monetary reserves would enable them to restrict oil production for political or other reasons.

The producing countries' control over their oil production and exports would be based not only on their participation in the producing companies, but stemmed primarily from their sovereign power over companies operating in their countries. Fiscal arrangements and payments to the producing countries were subject to their virtually unilateral determination, as reflected in the demands leading to the Teheran and Tripoli "dictates". Demands for national ownership of tanker transportation, reinvestments in oil exploration, refining, petrochemical, LNG facilities, and related industries were bound to be made. Levels of production and the size and direction of exports would be dictated for conservation, economic, political or strategic reasons.

However, the development of the oil resources of the Middle East did not reflect any extensive industrial involvement of the economies of those countries or any important contribution by their people to the huge flow of oil outward and of revenue backward. Operations were limited fundamentally to a small enclave.

Although a substantial part of the national companies' entitlements would, for some period, be sold back to their foreign partners for distribution, it was only a matter of time before the national oil companies would dominate the market for non-integrated third party sales of crude oil. Effective competition in crude oil sales between the producing affiliates of the international oil companies and their partners, the national companies of the producing countries, might become difficult if not impossible, as the producing countries might not only set levels of production but also fix the tax-paid cost and the prices at which the increasing quantities of crude to which their companies would become entitled would either be sold back to their foreign partners or offered by them to their own customers.

In addition, national oil companies of some of the producing countries would obviously work out deals for joint refining and marketing in importing countries. Likewise, the producing countries were likely to seek control of an ever-expanding tanker fleet to carry their oil exports.

Recycling "Petrodollars"

It was quite possible that by the early eighties the surplus funds annually available to Saudi Arabia could surpass $ 15 billion. The inflow of foreign funds to the treasuries of a few Middle East governments, and to a small number of their citizens, would far exceed any accumulation of foreign exchange holdings in modern times. Such amounts could not continuously be placed into long-term or short-term investments without risking severe international repercussions and restrictions on the free flow of capital. It was unlikely that the US, or any other developed country, would permit continued massive foreign investments that could result in takeovers of important companies or industries. Moreover, the reverse flow of dividends and interest would add an additional burden to the oil import bill of many countries.

This accumulation in the Middle East of oil and of money power – obtained like manna from heaven, and not yet accompanied by any substantial contribution in political, managerial or technical competence – could produce potentially explosive shifts in the balance of power. Not the least of the dangers posed by this concentration of oil power and "unearned" money power was the pervasive corruptive influence it might have on political, economic and commercial behavior in both the relatively unsophisticated societies of the producing countries and in the dependent industrialized nations. Lust for immense power and greed for money in unheard of amounts could easily corrode part of their – as well as our – political and social structure.

Any assessment of the future dependability of the area as the center for oil and money power was complicated by the many deep-seated conflicts such as those of Iran vs. Iraq, Iraq vs. Kuwait, Saudi Arabia vs. Oman and Abu Dhabi, Libya vs. the traditional Arab countries, and so on. There was the underlying rivalry between Iran and the Arab states of the Gulf for hegemony in the area, as well as the perennial dangers of the Israeli-Arab issue.

All these confrontations fundamentally affected the producing operations and government arrangements of the oil companies, who were likely to be drawn sooner or later into any local conflicts. Moreover, the producing countries would hold them responsible for their home government policies and expect them to support local political, strategic or economic interests. The companies would inevitably be asked to match any arrangements which their affiliates, or any other international oil companies, had made with governments of most other Middle East oil countries. And the rivalry between the Arab countries and Persia would compel either of them to claim that it had struck the most advantageous bargain with the oil companies.

Finally, none of the national governments was really stable and the societies involved were still largely backward; thus there were always serious doubts whether existing arrangements would survive any current regime.

V. *Limitations on Oil Companies in the Producing Countries*

Participation was mainly a device through which the producing countries, smoothly and by arrangements with the international oil companies, planned to obtain complete control over their countries' total oil operations. It represented a grand design for an alliance with the oil companies under which the oil producing countries, while pursuing their national objectives, would still be able to take advantage of the distribution, financial and technical capacities of the oil companies.

As explained by Mr. Yamani, the Saudi Arabian Minister of Petroleum, the weight of the national oil companies in producing countries should be combined with that of the international oil companies so as to:

(*1*) protect concessions from nationalization by forging a link between oil companies and producing countries;

(*2*) control oil operations while hanging on to foreign capital, expertise and marketing outlets;

(*3*) prevent competition between producing countries as sellers of crude in open market, to avoid a drop in prices and revenues;

(*4*) maintain thereby price stability, and even secure an immediate increase in world crude oil prices;

(*5*) achieve a position of influence in the oil markets;

(*6*) make it difficult for any producing country to insist on an "abnormal" increase in production.

As the Kuwaiti Finance and Oil Minister had put it, the true connotations of participation were nationalization or takeover. "What we called phased participation is in fact phased nationalization."

The national oil entities of the producing countries would in due course become practically the largest suppliers of oil – only somewhat delayed by the phasing out of "buybacks" by the foreign concessionary companies. In the meantime, they would try to use their private company partners, whose interests would be tied up inextricably in joint production ventures, to assure market stability.

The role of the international oil companies was thus changing from that of a buffer and bridge between producing and importing countries to what might turn out to be that of junior partners of the producing countries. They would be unable to continue to act as an independent-intermediary commercial force; instead, the producing countries would tend to treat them as service companies under their control that would undertake worldwide logistic, technical, financial, production and distribution operations.

Whether the companies liked it or not they would be compelled to protect their huge interests in the producing countries by adjusting their policies and actions to suit the wishes of the producing countries, hoping that nevertheless the pattern of their operations in their home countries and the importing countries would not be seriously upset. They could not be expected to take a strong stand in negotiations with the sovereign of the country on which their whole prosperity depended and whose national companies were their partners and would eventually acquire control of their operations. They would have to argue that they were serving the interest of their customers by not risking a confrontation that could lead to interruption of supplies; and as long as the companies were able to recoup escalating costs from the consumer, they would also protect their own commercial viability.

In such circumstances the importing countries and home governments could simply not afford to remain passive. The companies, as private commercial organizations, could not be expected by themselves to protect not only their own interests but also those of their customers. Thus it was doubtful whether the kind of negotiating problems we were facing now could be handled solely through a common posture of the companies or by any other kind of intercompany arrangements. A broad understanding on energy policy among the various importing and home governments was needed to counter the power of the producing countries to impose excessive demands on the international oil trade.

VI. *New Role of the Oil Companies in Importing Countries*

During the next decade and probably much longer, the international oil companies would continue to be a most important factor in the refining and distribution of oil in the Free World, based on their predominant investments in the local oil industries. They would also be the most diversified source of crude, while playing a leading role in exploration, new technology, and expanded upstream and downstream investments.

Nevertheless, the international oil companies and their home countries, especially the US, were now facing a lack of confidence by many importing countries with regard to their supply capabilities as well as their commitment to protect the interests of their worldwide customers. Europe and Japan should recognize, though, that it would be constructive if America, through the improved exploitation of its domestic resources, were to lower its dependence on Middle East oil and thereby reduce the competitive bidding-up and depletion of Middle East reserves.

The US had additional possibilities to put a "first mortgage" on some of the richest oil resources in the Middle East. The Saudi Arabian government would like to conclude special deals with the US for increasing oil deliveries. Iran would doubtless be keen to do likewise. However, any preferred treatment for the US as a customer for Saudi Arabian or Iranian oil would imperil its relations with other importing and producing countries.

The prevailing European fear was reflected in a 1972 draft recommendation of the Western European Union, which said in part:

". . . much of the oil imported by Europe is shipped under the American flag. The Middle East oil question is therefore mainly a commercial matter for the United States. For Western Europe, on the other hand, it is a vital matter and the interests of consumers do not tally with the interests of the international companies . . . Europe has no interest in becoming involved in a vain conflict for defense of the oil companies; its interest is to collaborate closely with the Arab states. The disadvantage of such a policy might be to make the European market over-dependent on the Arab states. But that is already the case since the Arab countries can cut off supplies of oil to Europe whether it passes through the international companies or is supplied direct . . ."

Whatever their motivation, the national companies of importing countries would expand their foreign supply operations. Any new such ventures would be subject to the same kind of political and economic risks as those of the international oil companies.

Investments by the producing countries downstream in importing countries were unlikely on a massive scale; even if this should occur, it would not provide much more security if the producing countries should decide to withhold supplies. Moreover, foreign crude secured by a national oil company of an importing country would probably be given preference in the home market. The resulting dependence on a limited number of sources of crude would make the importing country even more vulnerable to interruption and to cost increases.

A continuous process of yielding valid rights, not through genuine bargaining but under threats, was bound to undermine the prestige of the importing nations and companies as well as the respect for any arrangements concluded with them. Only a coordinated energy policy by the importing countries could prevent such harmful consequences.

VII. *Interests of the Home Countries of the International Oil Companies*

The interest of the home countries in their international oil companies had in the past centered around their supply capabilities, their support of the geopolitical power position, their contribution to the balance of payments, and their role in meeting increasing worldwide oil requirements. Important changes were now occurring in the two most important home countries, the US and the UK.

The first Suez Crisis and the Six-Day War had shown that even US, British or French-controlled foreign oil could be embargoed for shipments to the home countries. While the US was becoming one of the largest importers of Middle East oil, the UK – with the development of its North Sea resources – would be much less dependent on imports.

At the same time, the possibility of using control over foreign oil for political-strategic purposes of the home countries was disappearing fast. The producing countries could now supply or withhold oil to suit their own interests.

The balance of payments concern of the US might in the future be directed more towards the escalating foreign exchange costs of oil imports than to the benefits of profit transfers from international oil operations. On the other hand, the North Sea development might relieve the UK oil trade bill sufficiently to maintain a predominant interest in the profit transfers of British international oil companies.

An additional qualifying factor, however, was the interest which producing countries had in maintaining an effective relationship with the US – the most important political, economic, and military power of the Free World, which was also one of the largest and highest priced markets for imported oil. This explained Saudi Arabia's and Iran's interest in special oil supply arrangements with the US. Moreover, the US offered a big outlet for their capital investments, and was one of the largest sources of capital equipment, consumer goods, military hardware and advanced technology.

Finally, the US was the only power that could assure protection against communist incursions (Soviet and Chinese) as well as domestic subversion, so as to maintain the security of the Persian Gulf area.

Because of its domestic potential in conventional and non-conventinal hydrocarbon and energy resources, and its opportunity for a special relationship with Saudi Arabia and Iran, the US could "go it alone", if it ever wanted to. The UK, after development of the North Sea, would be less dependent on Middle East oil than any of its Common Market partners. It was, nevertheless, apparently the UK, at the Paris Summit of October 1972, which had pressed for an early formulation of a Community energy policy to guarantee lasting supplies under satisfactory conditions.

The ultimate interest of the most important Middle East producing countries not under Soviet domination was to guard their independence, which could only be achieved through close American links. The US would thus continue to dominate the international oil scene, not because of the foreign oil interests of its companies, but because of the world balance of power. An energy policy applying solely to the Community should be only the first step towards a policy that had to encompass the Atlantic group of nations and Japan.

VIII. *Need for an Atlantic-Japanese Energy Policy*

US relations with Europe and Japan were in disarray, with many outstanding unresolved problems on defense, trade, monetary issues, and so on. Instead of seeking a grand design to resolve all conflicts, it might prove more fruitful to tackle first those problems where chances of an Atlantic-Japanese policy were most promising. The future energy position of the Atlantic-Japanese complex of nations was one of the most important issues confronting not only each of them individually, but also as a group.

A joint or coordinated policy was urgently needed because any delays in which conflicting approaches to producing countries were made by the individual members of the Atlantic-Japanese group of nations would accelerate the disintegration of our partnership and encourage the arbitrary demands of the producing countries. Such coordination did not need to inhibit any of the partners from pursuing separate initiatives within the broad spectrum of Middle East relationships and within the framework of an Atlantic-Japanese energy policy.

The OECD Oil Committee was the most significant international organization encompassing the Atlantic-Japanese group of nations, providing them with exchange of information and expert analyses on oil developments, as well as policies for emergency stockpiling and apportionment of supplies in the OECD European area.

The Common Market was now engaged in a difficult effort to establish an energy policy that would secure lasting supplies under satisfactory economic conditions. But individual national policies could severely slow up the establishment of a Community policy. In the light of new power relationships, an effective Atlantic-Japanese energy partnership had to go further than either the OECD or the Common Market had advanced so far, although such a policy would build on their achievements.

Fortunately there was a substantial consensus on the need for a coordinated or joint approach to the energy problem in the US as well as the Common Market and Japan, as reflected in official pronouncements during the past two years.

IX. *Outline for an Atlantic-Japanese Energy Policy*

The major goal of an Atlantic-Japanese energy policy had to be to cope with the common problems of the security of oil supplies and the related financial issues. Future oil bargaining should no longer be lopsided in favor of the producing countries, but should also engage the extraordinary political, strategic and economic power of the Atlantic-Japanese group. Such "countervailing power" to OPEC would place international oil supply and financial arrangements on a rational and manageable basis. Fear had been expressed that such a grouping of importing countries might provoke a confrontation with producing countries, but this overlooked the fact that the balance of power had been tipped during the last few years.

Subjects to be reviewed under a joint or coordinated energy policy could include the following:

(1) Demand and supply, including tanker, pipeline, and refining availabilities.

(2) Research for new energy resources, especially atomic energy and non-conventional sources.

(3) Investment incentives and guarantees for resource development.

(4) Arrangements by importing countries for supplies from producing countries.

(5) Stockpiling, rationing and sharing of availabilities in case of emergency.

(6) Research on energy conservation (battery-powered cars, nuclear fueled shipping, etc.)

(7) Economic development and technical assistance for producing countries.

(8) Costs and balance of payments effects of oil imports of member countries and of developing countries.

(9) Government revenues of oil producing countries and their impact on world trade and capital flows.

(10) Dependency of Middle East producing countries on industrial and agricultural goods, military equipment, shipping, services, technical know-how, etc., of the Free World's oil importing countries; and strategies for coping with an oil supply, trade or finance emergency.

Administration of the energy policy might be entrusted to a new high level International Energy Council, composed of member states with an experienced permanent staff. Its organizational structure, powers and procedures would have to be negotiated. Although agreement would not be easily achieved, it had to be tried, and there was no time to lose.

It might be feasible to restructure the OECD Oil Committee or its High Level Committee to handle implementation of an Atlantic-Japanese energy policy, rather than start from scratch with a completely new body. However it were to be set up, the competence and functions of the International Energy Council had to be clearly delineated.

An arrangement for sharing import availabilities and stockpiling, applicable to all nations of the new Atlantic-Japanese partnership, might be the keystone for a broadly conceived energy policy such as outlined above. It could lead to a coordinated policy on oil supply, trade and financial problems. There was no longer any need for the hectic and improvised confrontations between oil companies and producing countries.

The oil companies, however, could not depend solely on their own strength. Firm backing by all major importing countries was essential for a credible negotiating stance.

OPEC unity might eventually erode, bringing producing countries to compete with each other for export sales to the companies whose purchasing power would derive from investment in and control over transport, refining and marketing facilities – the power to dispose.

Economic and technical assistance to the developing producing countries would advance their standard of living, diversify their activities and expand their trade. In due course, their integration in the world economy would discourage radical measures which might sever these links.

The importance of the Middle East as a supplier of oil to the rest of the world made it an attractive target for Soviet subversion. The communist world was tempted to encourage all the nationalistic and centrifugal tendencies in the Persian Gulf. However, any serious threat to oil supplies could easily lead to a confrontation between the major powers. Only friendly relations with the Free World could hold the Soviets at bay. A united Atlantic-Japanese oil posture offered the best safeguard for the security and prosperity of the importing as well as producing countries. Far from leading to a confrontation with OPEC, it was in fact the only way to avoid confrontation.

Inevitably, a new Atlantic-Japanese policy, designed to achieve energy security for the Free World, would bring greater involvement of governments in what had previously been industry affairs, with all that this implied. But there were no realistic alternatives, and the time for action was now, if not yesterday.

*
* *

In his introductory remarks, the author said that the private international petroleum companies – which up to now had assured the production, refining, transportation, marketing and financing of oil – were no longer able to handle by themselves the political problems confronting them in the producing, and even the consuming, countries. To the conflict of interest among the oil companies had been added the problems of internal strife and disputed successions in the unstable Middle East.

The Western world could not afford to pursue its passive and disunited course, hoping to gain individual advantages, company by company and country by country, through a "rat race" of catering to the whims of Arab rulers. In this process, we were dissipating our major asset: the Western political and military strength, on which the producing countries depended for their internal and external security. By undermining respect for the dignity of agreements, we were foregoing every chance for lasting security of supply.

Our central problem was the imbalance of negotiating power between the importing countries and the Middle East producers, which could be redressed only through coordination of policies among Western governments. Otherwise, we had no choice "but to run away and sue for peace". Hopes for a reasonable avoidance of confrontation would be in vain so long as the balance of power remained lopsided.

The author had no illusions that energy cooperation between the Atlantic community and the Japanese would be easy, but he concluded that "whatever the odds are, we must try to establish a situation where the oil supplies of the West, on which its security and prosperity depend, are handled in a rational manner, by a community of countries cooperating effectively with producing countries, and not on the run."

* * *

DISCUSSION

I. *Nature and Scale of the Energy Problem.*

According to the author of the American working paper, the "energy problem" was compounded of four principal issues:

1. *The continued requests for price increases* from Middle East producing countries, accelerated by the devaluation of the dollar. The international oil companies might wage a rear-guard action, but in the end they would yield rather than risk interruption of supplies. They believed it was up to the economies of the consuming countries to absorb these price increases.

2. *The threat to the availability of supplies,* coming not only from the producing countries' legitimate interest in conserving their principal resource, but also from their disinclination to take oil out of the ground in exchange for money which they did not need and whose real value was declining.

3. *The use of oil for political purposes*, as in the Arab – Israeli conflict, where the vital interests of the Western world were subject to a kind of blackmail.

4. *The attack against the oil companies' ownership position*, with Libya now emulating Iraq, for example. This would be bound to discourage the search for new reserves in politically questionable areas. Moreover, it would impose strains on importing countries like Japan, who would be unlikely to endure

shortages in order to protect ownership rights of American or European oil companies.

These various issues added up to a political crisis, not an oil crisis, in the view of a British participant. Middle Eastern countries had taken over quantities of oil contrary to their agreements, with two importants practical consequences. First, there was no limit to the price increases, and to the resulting impact on the balance of payments of consuming countries. Second, there was no particular incentive for the producing countries to develop the additional oil wells which would be needed if the civilized world were to continue using energy at the rate predicted. With a rising value to their asset, it was in their interest to leave it in the ground, regardless of world shortages. Producing countries would thus be able to determine the standard of living of consuming countries, and to enforce their political will upon them. It was not just a question of price (as an American participant had suggested) but of quantity. A French speaker agreed with this analysis.

The announcement of Libya's price demands, which had been made just as this meeting convened, happened to furnish an excellent illustration of the sort of problem faced by the oil companies. That country was responsible for one-sixth of Europe's oil supplies, so that one's access to a daily hot bath depended very much on the attitude of Colonel Qadhafi, as the British speaker put it.

For several years, the oil companies had been trying to explain to their respective governments that oil supply arrangements could no longer be regarded as a purely commercial matter, as agreements could not be enforced. The companies were not seeking to be relieved of their commercial responsibilities, but it was now essential that consuming governments become involved in what was essentially a political confrontation.

The implications of the Libyan situation were also discussed by a Netherlands participant. The potential off-take of high quality Libyan crude had already been reduced from three million barrels a day to two million, which had caused oil prices to harden in recent months. Having taken away some foreign oil production "on very strange grounds", the Libyans were now making new demands which could amount to nationalization. The danger was that the outcome of these Libyan negotiations might well be taken as a model by other governments where we so far had reasonable understandings, not only in the Middle East but in places such as Nigeria.

If one major producing country were to fall out, a drastic oil shortage would result. Nervousness about this eventuality was leading Europe and Japan to a scramble bordering on a psychosis, with capacity taken up to excess and prices running wild. As there were no longer shut-in reserves, such as the US and Venezuela had been able to offer in the 1967 Suez crisis, new contingency arrangements had to be made to assure consumers that supplies would be distributed to cover essential needs in a fair way. Existing emergency arrangements were outdated, as they did not take account of the growing import needs of the US and Japan.

An American participant said that the emergency we faced could be summed up in these statistics: Although we were consuming 40 billion barrels of oil a year, the amount of shut-in reserves that could be opened up and quickly made available was down to under 200,000 barrels a day, much of it in very heavy crudes that had no market because of their sulphur content. For the next three or four years, the problem would be to find and process crudes into products whose sulphur content would be acceptable under the new environmentalist requirements.

With reference to the question raised by a French participant about the possiblity of important new oil discoveries, the American speaker conceded that there were indeed vast reserves of hydrocarbons, but they were clearly finite. Although many parts of the world had not been actively explored, geologists had a pretty good idea of what could be found. Moreover, our rate of consumption had recently overtaken the rate of finding new reserves. It was unlikely that this trend would be reversed, and within five to ten years we might in fact be consuming hydrocarbons at a rate 50 per cent greater than the rate of new discoveries. Even in the Middle East, which we thought of as being well endowed with reserves, production would probably peak out in the 1980's.

The author of the American working paper said that it was most improbable that we would find another Middle East within the foreseeable future. Even if large new discoveries were to be made, a lead time of five to eight years would be needed to obtain substantial production from them.

II. *What Can Be Done about the Supply Situation?*

A. *The geopolitical background in the Middle East*

As it was generally agreed that we would be dependent on Middle East oil for at least the next decade, several speakers alluded to the importance of the political forces at work in that part of the world.

According to an American participant, any analysis had to begin with a recognition of the predominant role to be played by Saudi Arabia, which would supply well over half of our additional oil requirements. That country, which had recently achieved a daily production of seven million barrels, after being at four or five million barrels for some time, was expected to move up to 15-20 million barrels. The security and prosperity of all of our countries thus depended "on how King Feisal feels", in the words of another US speaker. Our dependence was rendered more precarious by the fact that Saudi Arabia was not a developed society with a large number of people who could make a major contribution in the GATT, or anywhere else where their power would entitle them to be; What would our response be if that country, following what it deemed to be its own self-interest, took steps that would undermine our prosperity and security?

A Canadian participant said that, although Saudi Arabia appeared now to be a country with whom arrangements could be made, experience in the Middle East had shown that regimes which were seemingly solid and in control of the domestic political situation could be replaced overnight. Although we were dependent on Saudi Arabia, Iran and the Trucial States, we had to recognize that there were pressures underway there to bring about changes in government. There was not only the Soviet interest in upsetting regimes around the Persian Gulf, as part of their long-term aim of controlling the Middle East, but there were also contests among the Arab states themselves. The one issue which appeared to unite them was the conflict with Israel, which posed serious political questions for the US and others in the bargaining for oil.

An American participant foresaw that the Arabs, emboldened by their new power, would increase their pressure on Israel over the next two or three years. The Israelis in turn, who were already nervously anticipating this, would find it increasingly difficult to propose the terms of a settlement which would be acceptable to all factions within Israel. This issue would turn out to be extremely divisive in the US, and an effort had to be made urgently to settle the conflict. It was a mistake, though, to regard Israel as America's problem, and the active cooperation of other Western governments was essential.

A fellow countryman was convinced that leadership in seeking a settlement had to come from some other country than the US, which was unfortunately regarded by the Israelis, as well as by both Arab extremists and conservatives, as an ally of Israel. This limited its ability to play a serious role in formulating a solution.

A British speaker agreed that settlement of the Arab-Israeli dispute was essential to progress in the Middle East. He had been struck, during recent trips to that part of the world, by evidence that the Arabs were deliberately trying to drive a wedge between Europe and America. Europe should feel responsible for seeking a solution, but he said "it will be difficult to take a lead unless the Americans are with us". Many Arab leaders, fearful of being overthrown, "could not afford not to go along with the extreme left-wing lunatics" against the West in the matter of oil policy. The bitterness of the Arab-Israeli conflict, combined with the hostile Arab attitude toward the US, made it unlikely that even our more moderate friends could exercise any useful influence on our side.

In the eyes of an American observer, the Arab-Israeli situation was particularly harmful in that it constantly inflamed and aroused Arab radicalism, which threatened the survival of conservative rulers such as King Feisal. However, it was unrealistic to expect, as Europeans sometimes did, that a solution would be achieved by the US reversing its policy and putting pressure on Israel to settle. "That simply is not in the political cards . . . We are going to have to live with that, using such quiet measures of persuasion as we can."

Another American participant referred to the interrelationship between Soviet policy and the Arab-Israeli conflict. The Soviet objective was a prolonged stalemate, which would intensify the process of Arab radicalization, stimulate stronger feelings of anti-Westernism, and in turn provoke Western animus toward the Arabs. Hence the Western response ought to focus much more directly on the need to promote actively an Arab-Israeli settlement.

In response to questions put by a German and a British participant, the American speaker replied that the Soviets' internal economic needs might make them more amenable to adjustments, and less obstructive to a Middle East settlement, than they would be if conditions at home were more favorable. Their willingness to discuss the sale of natural gas to the West illustrated this new receptivity to policies of accomodation.

Two Italian participants supported the notion that the governments of oil consuming countries ought to collaborate to resolve the conflict in the Middle East, as a counter to the active Soviet intervention there. One of these speakers said that any overall program of economic cooperation between the oil producing and consuming countries had to have a political background, which could not be achieved so long as the Arab-Israeli dispute was unsettled.

The impact of a possible change in Soviet policy on the question of the Middle East oil supply was discussed by an American participant. Since, as the author of the American working paper had pointed out, it was an asset for us that Saudi Arabia depended on the US for its security, then a mood of détente could produce a negative effect if the USSR were no longer to be regarded as our eternal adversary in the Middle East. On the other hand, the more dependent the Soviets became on economic dealings with the West, the less satisfaction they would derive from the prospect of uncertain Western oil supplies. Thus, before the end of the seventies, we might be consulting with the Soviet Union about Middle Eastern oil.

A French participant, who had recently been posted in Moscow, spoke of the diverse forces which were moving the Soviet Union toward détente with the West, particularly their desire to raise the standard of living of the people resulting in the new priority given to consumer goods in 1971. This policy hac represented an important departure for the Soviet leadership, and Brezhne still bore the risk that it might not succeed. The success of the current rap prochement with the US was thus very important to his policy. This did no mean that long-term Soviet aims had changed, but developments currentl underway might hold important consequences for Soviet policy, in the Middl East and elsewhere. While agreeing that the Arab-Israeli confrontation had t be resolved, the speaker thought that the perspectives for that were much mor distant than our immediate concern, which was to be adequately supplied with oil.

Another French speaker felt that the Arab-Israeli war was not a principal aspect of the energy crisis, as not all of the countries involved were oil producers. This view was echoed by a British participant, who said that the confrontation with the OPEC countries had very little to do with the Arab-Israeli problem.

Another British speaker, who recognized that the prolongation of the Arab-Israeli conflict posed a major threat to oil supplies, nevertheless challenged the argument that the time was ripe for a joint Western approach. Although there were long-range global implications, it was now a regional problem. Proposing a solution based on outside guarantees was dangerous, in that it fostered an unrealistic belief among the Arabs that we were capable of putting a great deal of pressure on Israel.

The essential problem at the moment was not with Palestine, but rather with relations between Israel and Egypt. The West had to pay more attention to Israel's genuine concerns about her security, particularly in Sinai. A coherent demilitarization program there would allow Israel to be more generous on the territorial question, which was so important to the Arabs in any settlement.

Another crucial area of concern to the Israelis was freedom of navigation in the Red Sea. This was why they were determined to remain in Sharm el Skeikh, and why they were anxious about their rights in the Bab al Mandab Straits and the Straits of Tiran. Although the West's role in promoting a settlement in this area would probably be fairly limited, it would be helpful if the Western maritime powers could grasp the urgency of this problem and lend their support to the need for an international maritime treaty. No grandiose plans were required, but more serious public discussion about Israel's legitimate security concerns might break the present stalemate and lead Egypt to a rational settlement.

Achieving stability in the Middle East by solving the Arab-Israeli dispute would initially aggravate the oil supply problem, in the estimation of a Turkish participant. If Middle Eastern governments were relieved of the pressure of this issue, they would be free to concentrate on the optimal use of their natural resources, which would probably result in more conservative production.

For the longer run, though, the speaker took a more optimistic view about the political evolution of the Middle East than that expressed by many of the other participants. As the Middle Eastern rulers became more responsible toward their people – giving them an infrastructure of schools, industries, trade unions, and other democratic institutions – public opinion in those countries would not tolerate "silly prejudices or extremist attitudes toward international issues". With this drastic change in the policical power structure of the Middle East, the oil issue would become simply an economic question. The laws of supply and demand, of elasticities and marginalities, would prevail. If the terms of trade were then to move against the consuming countries without any economic justification, the Western nations could act together to adjust the selling prices of the industrial and technological goods and services needed by the Middle Eastern countries, without which their money would be "an absolute embarrassment". The coexistence thus produced by natural economic forces would at last bring stability to the Middle East.

An opposite view was expressed by a Swedish participant, who predicted that Arab public opinion would become increasingly radical and nationalistic. As the wealth of those countries increased, their people would begin to ask what the money was being used for and to formulate extensive domestic demands. The resulting instability, which could not be resolved by Western interference, was sure to greatly change the picture in the long run.

B. *Negotiations with the producing countries*

A British participant contrasted the implication in the American working paper – that confrontation must be avoided at all costs – with the author's admission during the discussion that we were now confronted with the Saudi Arabians. "Messing around with words is not doing us any good", the speaker said. "The fact is, we *are* confronted."

And yet he was not alarmed at the prospect. Any cooperative action aimed at a fair sharing out of available supplies between nations was bound to be greeted "with a howl of rage" as provocative. The producing countries had two ways of applying pressure: first, by singling out a particular country with whom they happened to be displeased at the moment (e.g., the US over its Israel policy); and second, by picking off one or more of the international oil companies, from whom they thought they could extract higher prices.

Defending this double front was not easy. Formal international agreements would probably take years, not months, to work out. In the meantime, the oil companies were "in the firing line," trying to contend with ground rules dictated by sovereign states, backed by threats of expropriation.

To solve the immediate, short-term problem, the speaker proposed the urgent establisment of an interim "action committee" to formulate a joint answer "to attempts by producing countries to turn the heat on". This body could be composed of, say, nine representatives of the international oil companies and nine representatives of the three main consuming blocs: Europe, the US and Japan. It could have an unaggressive, diplomatic-sounding name, such as "The Committee for the Rationalization of Supply." The point was that its workings ought to be quick and flexible, able when necessary to provide decisions in a week's time or less. We therefore would need a plenipotentiary group of government delegates, empowered to sit beside the oil companies and to defend the point of view of the consumer governments.

One had heard "the most wonderful plans for sorting out these energy problems in 1980 or 1990", but meanwhile there was an immediate and serious confrontation to be dealt with. Even if they got no help, the oil companies would "soldier on, and would no doubt have to back away again." But no one could accuse them of not having given ample warning of the crisis.

An American participant agreed that there was an urgent supply problem and that private companies had been shown to be completely inadequate in dealing with the sovereign governments of producing countries. The OPEC nations were convinced that the consuming countries could not mount a solid effort to face up to them, and they were moving with impunity on that assumption. Negotiations therefore had to be placed forthwith on a sovereign-to-sovereign basis, with Europe, the US and Japan participating. If any major power remained outside, trying to make private arrangements, it would show that the consuming countries could not work together effectively.

Another American asked what good unity and firmness would do in the face of a decision by producing countries to keep their oil in the ground, and a Norwegian participant was not sure what cards the Western governments could play to exert more pressure on the producing countries, if we resorted to sovereign-to-sovereign negotiations. The speaker replied that, at some point, the developed world would have to "take unusual steps" to protect its supply of energy, in order to avid widespread unemployment and social unrest. Economic boycotts or shut-ins would obviously be against the interest of the world community, to which the producing countries had a definite responsibility. Whatever measures might be envisaged, sovereign governments could present a more convincing front than private entities.

A British participant wondered whether a sovereign-to-sovereign confrontation was necessarily the best answer. Although it might be effective on questions of price or distribution, there were dangerous political undertones. If public opinion or radical leaders in producing countries realized they were dealing with governments whose policies they disapproved of, they could use the oil supply issue as a means of exerting pressure. General Gowan had already said privately, for example, that if Britain should adopt a Rhodesian solution which he could not support as an ardent African nationalist, he would be quite prepared to "punish" her by a temporary boycott of Nigerian oil shipments. Similar sanctions might be applied with respect to the Middle East conflict. Before giving unqualified endorsement, therefore, to the concept of sovereign-to-sovereign negotiations, we ought to assess the political consequences, to be sure we were not "jumping out of the frying pan into the fire".

According to another British speaker, during the next 10 to 15 years the problem would be not so much the physical availability of oil in the world as the fact that supplies were concentrated in the hands of countries which were exploiting the situation for purely economic reasons. While the Western nations had allowed themselves to be divided and picked off one by one, a national sense of common economic interest had united such diverse leaders as the Shah of Persia, the King of Saudi Arabia, Colonel Qadhafi, and the prime ministers of Venezuela and Nigeria in a solid front. Our basic objective should be to break that monopoly.

To accomplish that, we would need "to use every single political weapon in our armory", and the speaker alluded to the significance of the fact that some of the members of OPEC were totally dependent on the West for their security. The job would be more difficult now that Western foreign policy had managed to produce such unwanted effects as the solidarity between Saudi Arabia and Iran; "a right stand earlier on might have changed the whole bargaining situation." In any case, some means had to be found now to deal with the sophisticated sense of common economic interest of the OPEC countries.

An American participant suggested that it was idle to talk about "breaking OPEC". Their common interests were much stronger than anything that could be stacked up against them. Furthermore, the Saudi Arabians could run an economic monopoly on their own, without OPEC, and were sophisticated enough to realize that they could set the price of oil. Admittedly, bilateral arrangements by consuming countries were clearly undesirable, leading as they did to a competitive scramble with resultant political friction between the developed nations. But the speaker doubted that anything more than "some form of relatively mild cooperation – not a formal confrontation" was realistic in the near future.

Negotiations with the producing countries had to be carried out by the oil companies. There was no one else "in the front line", nor was there soon likely to be. It had been suggested that perhaps governments could somehow set guidelines within which the oil companies could conduct their confrontationtype negotiations. This could be awkward, though, if the governments had no real power to exert and if their being prominently involved risked making matters worse. The companies certainly ought at least to keep their governments informed about the implications of what was going on, but beyond that the speaker was dubious about governments' playing any really useful role in negotiations.

A Netherlands participant, who was also sceptical about the chances of governments' having much more success in negotiations than the oil companies had had, said nevertheless that "it would be a comfort if we had a better place to talk than we have now."

A Canadian speaker felt strongly that governments ought to become much more involved in negotiations, as the private oil companies had really ceased to be principals and had become essentially agents. Aggressive confrontation with the producing countries might not be as effective as less direct means, however. Emphasis on "breaking up OPEC" was misdirected. The first problem to be resolved was rather the absence of a common political will among the consuming countries.

The moral aspects of this subject had been too easily overlooked, in the judgment of a French participant. There was something shocking about the idea that the developing countries – in the Persian Gulf, in Chile, or elsewhere – could simply take over and use the assets and techniques which international companies had invested there. Those companies did not belong to a handful of individuals, but to thousands of people throughout the free world community who had invested their savings in them. To accede to their expropriation would be to help to destroy a system for which we had been working for over a century, and which was the foundation of our prosperity. We therefore had to try to maintain good relations with the developing world while insisting that certain fundamental guarantees to investors be respected. The spread of inflation had added another dimension to the problem: we could not allow the price of essential raw materials to be set entirely in accordance with the wishes of the producing countries, without standing up for the vital interests of our consumers. In the last analysis, this was the duty of our governments, and not of the oil companies.

C. *Transforming our relations with the Arab states*

Several speakers expressed the view that negotiations with the producing countries would be more fruitful if their context were broadened beyond the confines of the oil supply question. A Netherlands participant said that it was outdated to treat the Arab countries as if they were of secondary importance in the world's economic system. Simply offering them more money would not * suffice; they would get that anyway. It was likewise foolish to advocate political or military interventions. We needed instead to offer them the prestige of being accepted and involved in our councils of trade and monetary matters.

An American speaker sensed that the Arabs had for years felt excluded from participation in the world community, and that this feeling had been intensified by the instability and backwardness of their societies, resulting in psychological complexes. With the accumulation of Middle Eastern wealth, and the emergence of a new middle class of bureaucrats, there was the danger of Arab nationalism becoming increasingly radicalized. Our area of maneuver in responding to this had been greatly reduced by the Soviet political presence. The main thrust of our efforts therefore ought to be directed at shaping new relationships with the Arab states, to give them a stake in the emerging global community. Europe, America and Japan had to try to work in concert to create "institutions and opportunities in which the Arabs can participate with economic profit and with political dignity."

An Italian participant said that errors in economic and political forecasting had brought us to our present position of absolute dependence on the Middle Eastern countries for our oil supplies. Their requested price increases were simply a reflection of the law of supply and demand which we had always espoused. If we believed that better relations with the Arabs were needed to secure our needs, we had to be prepared to offer them "something more than a common merchandise agreement."

A Netherlands participant thought that our relations with the Arabs would be much improved if we were to meet with them more regularly, and not just in the urgency of a crisis, when conflicting emotions were bound to be dominant. The speaker had observed that sitting around the same table for several years gave people a foundation of mutual understanding and friendship upon which they could negotiate their differences. He suggested therefore that it might be useful to form an unofficial "working committee", composed of delegates from the producing countries, the oil companies, the OECD and public representatives. In giving each side a chance to gradually appreciate the problems of the others, this might in the end be more productive than more formal strategies.

The response of a British participant to this proposal was that his professional negotiations with the Arabs had not been facilitated by his having been on very friendly terms with them for some 15 years.

Integrating the Arabs into the councils of the West was a commendable objective but an extremely difficult one to achieve, in the opinion of an International speaker. Lacking a middle class, those countries had very few people who were experienced and competent in international relations. While their leaders expressed perfectly reasonable reactions in private, they felt constrained by the fanatical quality of public opinion from openly supporting any line which might be considered by their extremists as being pro-Western or against "the sacred cause of Arab nationalism."

A further reservation was voiced by a British participant, who felt that bringing the Arab governments into consultations about the whole range of economic and monetary problems would simply enable them to identify in great detail the weaknesses of the Western bargaining position. Moreover, it would inevitably bring into question their major political preoccupation in the Middle East, about which Europe and the US seemed unlikely to agree on a solution.

Another British speaker, while not objecting in principle to the idea of bringing the Arab countries more into our political and social consultations, thought that this was an extremely long-term project. It did not offer an immediate inducement to the producing countries to maintain the flow of their oil supplies.

D. *Sharing available supplies*

A US speaker said that the struggle for shares of available oil supplies would impose unprecedented strains on the world. If it became an issue between the US and Europe, "it would be the greatest single threat to the solidarity of the Atlantic community that we've ever seen." Resolution of this problem would require urgent and extraordinary measures. Another American participant remarked that the very tight supply situation during the next two years threatened to provoke a scramble which would cause substantial political friction among the industrialized nations. In dealing with this crisis, it would be impossible for the oil companies to take it upon themselves to allocate available supplies among the various consuming countries. This job had to be done by the governments, who therefore ought to reconstitute and modernize the old OECD emergency plan as soon as possible. Governments should also move ahead on OECD exergency stockpiling plans, although they could not be implemented for at least three of four years because "we can't stockpile a deficit in supply."

The notion of using the OECD Oil Committee as a forum for cooperation on supply arrangements was supported by several other interventions. A Belgian participant said that this would allow us to coordinate the positions of all the leading consuming countries, while making use of the established contacts between the OECD and experts in the petroleum industry. In his opinion, a broad range of responsibilities should be entrusted to the OECD Oil Committee.

The fact that the OECD committee was already functioning was cited by a

Swiss speaker, and a Netherlands participant agreed that it would be easier politically to use this existing vehicle than to create a new one. However, to permit the necessary cooperation by the oil companies, there would have to be a specific, formal relaxation of the US anti-trust laws. In the allocation of supplies, the immediate general interests of all consumers should take precedence over national and regional policies and longer range plans.

To a Canadian speaker, it was important that any multinational action taken by the importing countries (a) should not be limited to the US, the EC and Japan, but should include other major consumers as well, and (b) should not appear provocative to the exporting countries. In light of these objectives, it made sense to expand the range of activities already underway in the OECD Oil Committee. The fact that oil supply questions had not heretofore been given sufficient priority within the OECD was the fault of the member governments and not of the secretariat.

An American participant remarked that he sometimes worried more about getting along with the Japanese than with the Arabs. One had heard reports of the Japanese touring the Persian Gulf and categorically rejecting any idea of cooperation on any level, let alone joining in a sort of united consumer front. As they were much more vulnerable than the US or Europe to a cut-off in Middle East oil supplies, they might well be tempted to break away and make two or three pre-emptive deals. This was a critical danger that America and Europe should be working in concert to avoid.

A general description of the activities of the OECD in the energy field was provided by an International participant. A comprehensive long-term energy assessment project had been begun in 1972, aimed at reviewing the outlook up to 1985 for energy resources, supply and demand relationships, environmental considerations, technological developments, implications for the monetary system and the developing countries, and so on. Within five months, such a sense of urgency had developed that the project had been split into two parts: one to continue the long-term assessment, the other to concentrate on the short-term supply problem and the need for cooperation between now and 1980. A paper on the latter subject was scheduled to be completed very shortly, which would enable member governments to assess the problems and to decide on a course of action.

In any case, it was clear that the Oil Committee and the High Level Group would need to change their procedures and working methods in order to deal with emergencies and to try to prevent them. The present emergency scheme, designed for Europe, would need to be extended to cover North America and Japan as well. The speaker was confident that appropriate ways would be found within the OECD to associate the efforts of governments and the petronomic rule: energy, like any commodity, had its price. For too long, Europe and America had consumed cheap fuel without setting aside financial reserves for its replacement or substitution. We had now belatedly to recognize that prices needed to be high enough to meet the demands of the producing countries as well as to cover the costs of research and development for new fuel sources, notably atomic energy. And we would only be credible in the eyes of the Arabs if we moved to develop alternative resources.

An American participant argued that any effective program of international cooperation or consultation had to be built on the foundation of various national programs, designed explicitly to meet the strategic goals of each country and endowed with the institutions, the people and the money to carry them out. With these underpinnings at the level of national capabilities, we would have the basis for an international coordination and harmonization of energy policies.

As an example of an appropriate national program, the speaker proposed the following "plan for American energy independence":

1. The existence of a national energy emergency should be recognized, based on sharply increased oil imports from the Middle East, the precarious reliance on them for the continued operation of the economy, and the huge anticipated drains of foreign exchange. The legal precedents for declaring an emergency in such circumstances were well established.

2. A National Energy Authority should be created with a ten-year life. Its mission would be aided by an Energy Finance Corporation.

3. These long-range strategic goals should be adopted:

(*a*) Allow for an annual growth rate of 3 per cent, instead of 4 ½ per cent, until 1985.

(*b*) Aim by 1985, to meet 50 per cent of US energy needs from coal – and a minor part from shale, largely in the form of gas from coal – at costs of less than a dollar per million BTUs. This would allow reduction of oil imports by 1985 below five million barrels a day, or ten per cent of forecast demand. Ten per cent of US energy needs should be met by then with nuclear power.

(*c*) These objectives would require:

i. an increase in annual coal production from 500 million tons to two billion tons, at a cost of at least $15 billion;

ii. construction of shale oil plants with a capacity of one million barrels a day, to determine feasibility and environmental impact;

iii. requirement that some small percentage of refinery feedstocks be synthetic, from coal or shale;

iv. a "crash program" to evaluate the four coal gasification processes, so that within two years the best one or two could be chosen;

v. construction of coal gasification plants to process a billion tons of coal by 1985, at a cost of $50-60 billion;

vi. progressive insistence on stack gas desulphurization;

vii. reservation of increased amounts of oil for transportation uses;

viii. construction of the necessary pipelines, railway facilities and other infrastructure.

All these steps could be achieved by contracts with public and private authorities, using the Energy Finance Cooperation only when private capital were not available.

4. These short-range goals should be pursued by the National Energy Authority:

(*a*) Clear the way for a superport, to permit unloading of 250,000-ton tankers on the east coast, at a cost of $1-2 billion.

(*b*) Acquire inland sites for a strategic crude reserve of, say, one billion barrels (100 days at 10 million barrels a day), with fuel inventory and storage costs of $6-8 billion.

(*c*) Acquire sites for clean refineries.

(*d*) Break the deadlock on the Alaska pipeline.

(*e*) Promote offshore east coast oil and gas exploration and production.

(*f*) End the stalemate on nuclear development by putting future plants at least 500 feet underground in tight geologic formations, so that melting would not be disastrous.

(*g*) Support various research and development activities.

The speaker believed that shortages of fuel oil, gasoline and natural gas within the year would make it clear that the elements of a national emergency existed, but that the US, like other countries, could successfully surmount such an emergency if it were willing to work hard at it for at least a decade. Congressional and executive leadership were essential, though, in pushing through an emergency program.

Seeing the US moving ahead on a credible, realizable plan to withdraw from its dependence on Middle East oil should be welcomed by the OPEC countries, which were anxious to conserve and stretch out their reserves. It should also have a beneficial effect on Europe and Japan, who would be promised some eventual relief from the scramble for Arabian supplies, and would at the same time be encouraged to work on their own development and conservation programs.

The foregoing proposals were welcomed by another American participant as a good program to reduce the West's dependence on the Middle East, but he thought that they would take nearer 20 years than ten to achieve, and would cost more than the estimates given. A disproportionate amount of US steel capacity would be required, and limiting the nation's growth rate to three per cent would seriously impinge on economic activity and employment. Most important, he wondered whether the program could be accomplished in the public sector as quickly and efficiently as it could be by utilizing the resources available in the private sector.

The proposals for US energy independence were endorsed by several other speakers. A German participant said that Europeans should press ahead in the same direction. He called for a thorough energy review, both at national and Community levels, and wished that the EC could "invest the same kind of intellectual and administrative talent in this problem as it does in that strange construction called its 'agricultural policy'". A Norwegian speaker thought that the long-term aspects of the proposals were even more important than those relating to the next decade, for Europe as well as the US, as "the hydrocarbon as a source of energy is historically going to be an episode, and not an epoch." By the year 2000, hydrocarbons would be used chiefly as a raw material and for certain forms of transport. Conventional energy would be solar, geothermal, nuclear and coal-based.

An American participant cautioned against a "quest for energy autarky on the part of the US alone," which would have a pernicious effect on relations between Europe, Japan and the US and be counterproductive for the energy problem itself. In the opinion of another American, though, the program in question did not involve "going it alone" at all. The US would still be very much in the oil market, importing probably five million barrels a day in 1985. This would be rather a cooperative action, taking advantage of a particular source of energy the US had in abundant supply and thus easing the strain caused by American buying from European refineries.

Although he thought it unlikely that the Arabs would not increase their oil production during the next several years, an American participant said that "something other than hydrocarbons is absolutely essential for the longer run." If alternative forms of energy did not come into the picture by 1980-85, our problems would be infinitely worse than the ones we envisaged now for 1980. Enormous volumes of coal were available, for one thing; only seven or eight per cent of recoverable reserves had been consumed so far in the history of the world. Shale reserves were also substantial. Governments should be concerting their efforts in research and development for these and other resources.

German and Netherlands speakers recommended that Europe reconsider the closing of its coal mines. They did not look competitive at this juncture, but they might be ten years from now. A French participant, on the other hand, did not believe that the European coal industry warranted additional investment. Perhaps 100 million tons more of coal could be mined in Europe, but 200 billion tons would be needed by 1985 and twice that much by early in the next century. The price of European coal energy would be at least two centimes per therm, while it was estimated that nuclear power plants could produce profitably at 0.8 per therm.

The author of the American working paper stated that the reserves of shale in the US and of tar sands in Canada represented hundreds of billions of barrels of oil content. One should not be misled by these figures, however, as the extraction costs would be substantial. To produce a million barrels a day of shale oil, for example, would require handling perhaps 500 million tons of shale, nearly as much as our present production of coal. There were also environmental factors, such as the inadequacy of water resources in the areas where shale was found and the problem of disposal of the expanded shale after extraction. Consequently, we could probably count on production of no more than 500-800,000 barrels a day of shale oil by 1980-85. Work on tar sands was further advanced, and we could anticipate production of perhaps 600-700,000 barrels a day by the early 1980's. While shale and tar sands could thus make significant contributions to our supplies, much greater reliance should be placed on coal and nuclear energy.

In the judgment of a Canadian participant, the enormous potential of tar sands had not been generally recognized. The Athabasca tar sands in the province of Alberta contained reserves of some 50 billion barrels on the surface and 250 billion barrels below it. In the light of technological breakthroughs and the increased price of crude oil, the exploitation of those surface reserves had now become economically feasible. The construction of eight or 10 plants there would allow Alberta tar sands to take up perhaps 10-15 per cent of the slack in US import requirements from the Middle East. In the process, industrial companies would be encouraged to work on further technological improvements which would make extraction of the underground reserves profitable.

A British speaker referred to the lead time required for the tar sands project, and said that as soon as development was economically justified by the world price of crude oil and/or some politically-sponsored incentive, the international oil companies would certainly be prepared to move ahead.

Another Canadian participant replied that, by 1975, the accelerating price of crude oil should have passed the current production price of tar sand. The speaker went on to say that nuclear energy offered the best early opportunity to replace petroleum, for the static generation of energy, i.e., for non-transportation uses. There were serious problems including enrichment, proliferation and waste disposal, and the OECD was the best forum for a cooperative research effort.

Two Swedish participants agreed that urgent international action was needed on nuclear enrichment and the handling of wastes. According to some estimates, the electricity companies would rely on nuclear power for half of their production by the mid-1980's. Uranium enrichment capacity, still confined largely to the US, would be fully utilized by about 1982, so Europe had to move quickly in that direction.

According to a French participant, Europe had nearly reached its limit in hydroeletric production, coal was uneconomic, and solar energy lay too far in the future. Nuclear energy gave the only promise of reducing our dependence on petroleum. This meant that Europe had to devote itself, not only to the problems of uranium enrichment and safety, but also to the task of greatly enlarging its electric transmission capacities. The cost of developing nuclear power plants and related transmission lines would not be any greater than a parallel program for, say, producing energy from North Sea oil. But even with optimum growth of electricity based on nuclear power over the next quarter-century, France would only cut her dependence on oil in half, so that problem would remain to be solved.

A British speaker, conceding that we would be greatly dependent on nuclear energy a decade from now, wondered if we could calmly accept the risks involved. Safety objections might be met by deep underground burial of breeder reactors, but there would be a thousand of them in the US alone. The disposal of hot wastes would require a solution which would be valid for hundreds of thousands of years, and the transportation of plutonium on a large scale involved risks of highjacking. Although we could hope to find solutions which were not yet evident, was it not prudent to question our whole trend of economic growth, and to encourage only those forms of technology which were "environment-enhancing"?

A Norwegian participant asked what action the OECD was taking concerning the principal immediate problems connected with nuclear energy, which he identified as: development of the fast breeder (difficult with enriched uranium reactors, he thought, because of a shortage of fuel); disposal of hot wastes; and education of the public to take a rational attitude toward nuclear risks. A longer-term problem was the need to advance work on nuclear fusion technology.

An International speaker replied that the first two of those subjects were indeed on the priority list of the OECD nuclear energy agency. The third – education of the public – did not seem to fall within the framework of their study. The realization of fusion projects lay beyond the year 2000, so it was not on the pre-1985 priority list, but this subject would come onto the research agenda in due course.

Referring to the implication in a previous intervention that uranium was in limited supply, a Canadian speaker argued that it was a relatively common mineral available at fairly reasonable prices. Fear of a shortage of uranium should therefore not deter the development of nuclear energy. Although the fusion reactor was not likely before the end of the century, the technology of reactors for the generation of electricity was well advanced and could soon provide a substantial answer to the supply problem.

An Italian participant agreed with this forecast, but expressed disappointment that national rivalries had subverted Euratom. If Europe ever hoped to have a measure of energy independence, it was essential to revive nuclear research and development at the Community level. A German speaker concurred in this prescription.

The author of the International working paper explained that the failure of Euratom had been assured when the purely research aspect had become subservient to industrial applications; then each country thought it could do better than its neighbor and make more profit than by working in unison. Unfortunately, this tendency was not limited to the nuclear field: producers of coal, oil and electricity were all in favor of rational energy policies, until imports, or increased costs, or public controls interfered with their freedom. We would all agree on energy policies for our neighbors, but not for ourselves.

A British intervention suggested that lack of a coherent European energy policy should not be blamed on the EC as a whole, but on the Council of Ministers, which had failed to implement sensible recommendations. Recent Community debate on the energy question had in fact been "far more impressive than anything we have had in the House of Commons."

This position was endorsed by an Italian speaker, who pointed out the result that the Commission's statements on energy were becoming weaker and weaker. About all that was left of Community policy were the internal aspects, whereas external relations – with the US, Japan, the producing and developing countries – ought to be more important. At the same time, the speaker was sceptical about the revival of Euratom, as he did not favor sector policies. If Community nuclear policy were to be based mainly on research problems, he would prefer to stress the industrial aspects.

A "global crash program" on nuclear fuels was advocated by an American participant, who remarked that we had all mistakenly assumed 20 years ago that "the nuclear age was around the corner, and that a substantial amount of our power would come from nuclear sources."

A Belgian speaker reminded the meeting that the word "nuclear" still evoked an emotional public reaction. An educational program was needed to reorient our system of values, so that a nuclear reactor was regarded more favorably than a fuel oil plant.

III. *What Can Be Done about the Demand Situation?*

A. *The validity of consumption forecasts*

A German participant asked whether the energy forecasts on which the discussion had been based were necessarily inexorable. With so many Western countries approaching zero population growth, would consumption indeed continue to grow as predicted? Could not the public be educated as well to renounce certain comforts to which they had become accustomed, such as air conditioning, overheating and the proliferation of private transportation?

The author of the American working paper conceded that projections of future requirements indeed covered a wide range. Differences between the high and low official estimates of import demand for the US, Europe and Japan were 10 million barrels a day for 1980 and 12 million for 1985. However, there was very little we could actively do to reduce consumption substantially in the next ten years. We could not build mass transportation systems within that time, and cutbacks in other areas would be marginal. Attempts to cut consumption simply avoided facing the problem of our dependence on two or three producing countries, who could "hold us for ransom" even if world demand were reduced by 20 million barrels a day in the 1980's.

A British speaker pointed out that past experience showed that official forecasts of energy consumption trends could be quite wide of the mark.

A Canadian participant wanted to know more about the nature of expected demand. Had the estimates been broken down between "what might be called legitimate industrial producer demand and the unrestrained whims of consumers?" And how much waste could be avoided? Could not democratic governments recognize that energy economy was an essential national strategy, and devise systems of incentives and disincentives? Very minor restraints could produce striking results, and the alternative was a menacing system of rationing and increased prices.

B. *Economic, political and social aspects of demand reduction*

A Swedish participant said that a reduction in the demand curves from present projections was "largely a question of political will". The market had to be manipulated by a price mechanism – taxes or other – and certain physical restrictions and infrastructure investments, such as in public transport. If solutions were not found, industry would be the first sector to be severely hurt * by energy shortages. It was therefore in the interest of industrialists to accept a certain amount of political intervention. It was difficult, though, for any one country to "go it alone", and international targets and programs to reduce consumption would help politicians to enact necessary measures which would not always be popular.

The American participant who had proposed a plan for US "energy independence" believed, on the other hand, that international cooperation to reduce consumption would be effective only if there were strong national programs. The extravagant waste of energy in the US was appalling; per capita consumption was three times as great as in Europe, but the quality of life was not proportionately better. This indicated substantial opportunities for saving if appropriate incentives and disincentives were adopted, and the speaker thought a reduction in annual demand growth from $4^1/_2$ per cent to 3 per cent was "politically saleable now".

A British participant asked whether the disproportionate per capita consumption of energy in America as compared with Europe – which was expected to drop very little before the end of the century – was due more to inefficiency in the industrial sector or to the extravagance of private consumers. The author of the International working paper replied that the higher US consumption had two explanations: first, the much larger size of the country meant that transportation costs were greater; and second, there had always been more waste, since energy had been traditionally cheap in the US.

A comparison of working conditions today and a generation ago in US factories, mills and offices was offered by an American participant. Much of the improvement in workers' health and efficiency was attributable to the advent of air conditioning and air cleaning, and American offices and plants now routinely incorporated those features. Another, less positive, development during recent years had been the steady decline in the reliability of commuter railroad service, which had brought many Americans to rely increasingly on their automobiles to get to and from work.

Thus, much more was at stake than simply checking "the unrestrained desires of the consumer". The speaker warned that "a very sharp decrease in the gross national product and a tremendous amount of labor turmoil" could result from a wholesale cutback in American energy consumption.

Several participants referred to the particularly depressive effect which a reduction in energy consumption would have on the vulnerable less-developed countries, who were just now poised to make new advances on the social and economic scale. The consensus was that special preferential arrangements were warranted to guarantee the "third world" import and consumption levels sufficient to sustain its momentum toward development. A British speaker pointed out, however, that 92 per cent of the automobiles in the world were located in North America, Japan and Europe.

The importance of an informed public opinion was stressed by a number of participants. A Danish speaker said that people would be willing to suffer hardships and restrictions if they understood the reasons for them. As things were, perhaps three-quarters of the European population did not know what the "energy crisis" was all about, which made effective political action difficult. The oil companies could not very well take the lead in an educational program, as they were rather unpopular and would be suspected of bias. An organization such as the OECD, however, could possibly divert a small part of its long-term research budget into the immediate task of bringing home to the people of Western Europe what was at stake, and what some of the solutions were.

An American participant felt that reduction of demand in his country would be aided by a new energy crisis statement from the administration, suggesting specific consumer actions and attitudes that would cut consumption. A change of orientation in advertising by the energy industry in general would also be helpful.

Another US speaker said that the energy crisis was so far too abstract and potential for the public to grasp, and a Netherlands intervention suggested that many industrial leaders as well lacked a sense of urgency about the problem. A Swiss participant countered that a perusal of newspapers and magazines during the past six months would have made the man in the street well aware of the nature of the crisis.

C. *Avenues towards better fuel economy*

1. *Reducing industrial and household consumption*

A Canadian participant spoke of the great waste of energy (perhaps as much as half of consumption in the US), and proposed that we attack the problem on that front as well as on the supply front. It had been said that waste in industry was even greater than among private consumers. We needed some control over the end use of energy, "to divert it from socially unproductive to socially productive uses." One method would be for utility companies to stop giving quantity discounts and start charging quantity premiums.

A Netherlands speaker thought that industry in general could achieve substantial savings on its fuel bill. He also pointed out that some of the northern countries had done an excellent job of insulating their dwellings, bringing their heating costs below those of the rest of Europe. A German participant added that Europe was not as overheated as the US, but that a lot of unnecessary air conditioning was perhaps coming in vogue. Referring to a previous American intervention, a British speaker wondered whether it was really necessary to rebuild office buildings in order to open their windows.

An American speaker said that we ought to train and use many more experts in the field of fuel efficiency and conservation. Most of the know-how today was concentrated in the hands of people who stood to profit from the greater use of fuels; it was unrealistic to expect them to advise on ways of reducing demand.

Certain countries had set examples that were worth emulating. In Norway, a high level of insulation was required to qualify for a house mortgage loan; in Britain, a National Fuel Efficiency Service had given helpful advice during the period of postwar construction. A cooperative effort now among, for example, the OECD countries could assure the development and exchange of new expertise on fuel conservation.

2. *Improving transportation efficiency*

Many of the participants were convinced that a radical change in our modes of transportation was the key to a substantial reduction in energy demand.

A Canadian speaker said that over 75 per cent of the energy input in American automobile engines was wasted. He condemned the "monsters of Detroit, which use twice as much fuel to go half as far as the cars built elsewhere in the world." A US participant agreed that American cars were wasteful, but estimated their fuel consumption at simply twice as much per mile as European models.

Another American participant was troubled by the apparent philosophical assumption by many people in his country, including the young, that they had "some kind of right" not to drive small automobiles. One measure proposed by a German speaker was to limit automobile ownership to those over 21. It was essential to prevent the proliferation of private transport, even if this meant subsidizing mass transport to the point of reducing fares to zero.

A Belgian intervention emphasized the need for a "psycho-social and political" reorientation of our values, to enable an efficient network of public transport to replace our "absurd system" of urban transportation by private automobiles, with its attendant problems of parking, road congestion and air pollution. Although this reorientation would not completely solve the energy problem, even a marginal reduction in demand would be welcome in the supply crisis which lay ahead.

The fact was, as a British speaker mentioned, that family holiday travel by private car, for instance, cost a fraction of the railway fare. Could one realistically expect subsidies of public transport that would be large enough to close that gap?

Another British participant sought to put this part of the discussion in perspective by pointing out that automobile gasoline accounted at most for 15-20 per cent of a barrel of oil. Although this was important, it was not the major issue. "We're talking about fuel oil, diesel oil," he said. "Those are the main uses of energy. The automobile market is the least of our problems."

An American speaker, responding to a British question, feared nevertheless that gasoline shortages and rationing could cause unemployment and "tremendous social disruption" in the US automobile industry. A German participant was inclined to share that concern. He foresaw "enormous consequences" for the automobile industry and for our economies as a whole if oil became much more expensive or was in really short supply.

On this point, an Italian speaker offered the following statistics and forecasts: The present world automobile market amounted to 34 million cars. Three million people were employed in producing them, and another three milion worked in related manufacturing. The automobile industry accounted for around 15 percent of total energy consumption.

By 1980 and beyond, there was the chance of a smaller engine, an accelerated switch from gasoline to diesel fuel, and possibly an electric or steam car. Besides these changes in the motor car itself, there was the possibility that the motor car would be supplanted in part by public transportation; but that would entail educating people to new conceptions of towns and different ways of living, which would take time.

In short, the forces tending to reduce the automobile's share of energy consumption would not be felt for at least six to eight more years. At the same time, the campaigns for cleaner air and greater auto safety would mean increased gasoline consumption through antipollution devices and bigger cars.

The US automobile exhaust device would require an additional million barrels a day of gasoline in 1976, according to an American speaker. This was more than all the proposed production of oil shale – "a little counter-productive!" Two other Americans and a British participant argued that it was essential that the US defer the imposition of its anti-pollution measures beyond 1975. As one of them put, it, "the goals of the environmentalists are excellent, but their timetable has proved to be impracticable." Exporting these American standards to Western Europe would just compound the problem.

A French speaker referred to the relation between gasoline shortages and the slowdown in refinery construction due to environmentalist restrictions. Legitimate motives were involved, but one could never hope to regain the clean air of the horse and buggy days of 1850.

3. *The validity of fiscal measures*

Opinions were divided about the effectiveness of tax incentives or disincentives.

A Belgian participant explained that, in the past, European countries had generally not practiced "fiscal neutrality" in the energy field: the oil sector had been taxed more heavily than coal or nuclear energy. Although this policy had admittedly been discriminatory, it had perhaps been right; otherwise the demand for oil products today would be even greater.

It might be constructive to increase some oil tax exemptions to finance more research, but the principle of fiscal restraints on demand should be retained. We had been privileged to enjoy cheap energy for the past 20 years, and we now had to accept the inevitability of price increases.

A French speaker recommended heavy increases in taxes on oil, especially gasoline, on condition that the proceeds be devoted to (*a*) constructing nuclear energy plants for electricity, and (*b*) subsidizing commuter trains.

The reaction of a British participant was that increasing taxes on oil was a sure way of stimulating the producing countries to demand a bigger "take". The consuming governments already took more than the producers, and this would "only give more ammunition to the Arabs."

A German speaker suggested that this issue could be averted if some of the taxes – enacted to restrict demand in the consuming countries – could be channelled as aid directly to developing countries. This would not only discourage the producing countries from seeking higher prices, but would also be a step away from the dangerous "bloc-building" trend.

A British participant, agreeing that heavier taxes on oil itself would subject us to more OPEC pressure, proposed instead that taxes be increased on those automobiles and machines which consumed oil extravagantly. "Nothing would do more to promote the use of small cars; this would not be rationing by the purse, it would be exactly the opposite. We would discourage better-off people from having bigger cars." He also advocated fiscal means to discourage the use of private motor cars for city commuting, thereby aiding the development of mass transit systems which would use one-fifth or one-tenth of the energy.

A US participant intervened to remark that this speaker had "developed a new devil: the American consumer, particularly the automobile driver."

The author of the American working paper thought that increasing taxes on fuel for industry or public transport would have little impact on demand. It might have some effect on private transportation, but only marginally. Even with the present high fiscal burden of $51 on a $73 ton of oil, gasoline consumption was still rising 5-6 per cent a year.

An Italian speaker observed that the automobile was responsible for about

20 per cent of total energy consumption in the US and 13 per cent worldwide. If higher taxation on gasoline and/or big engines were to reduce engine sizes by 40-50 per cent within eight years, the effect would be merely to cut the percentage of energy consumed by cars from 13 per cent to 10 per cent. Thus the impact of fiscal disincentives would not be significant, in his judgment.

A Netherlands participant reported that the attempts in his country to replace the motor car with public transport by means of price policy had failed. It would help to modernize the trains, but that would require huge investments. In the long run, the only way to be sure of checking the use of automobiles – which was essential – was by physical restrictions on the roads and parking facilities.

The author of the International working paper agreed that elasticity of short-term demand in the transportation field was rather low. So far in Europe, the heavy taxation of gasoline for general budgetary purposes had not reduced demand, although it could eventually push much of it from gasoline over to diesel oil.

In general, though, the speaker warned against "rationing through the purse strings." The acquisition of automobiles and household appliances by more and more citizens represented commendable social and economic progress, and government action to increase the price of fuel ought to be the very last measure envisaged.

IV. *The Monetary Impact of the Oil Crisis*

A. *Expected changes in patterns of trade, investment and payments*

An International participant discussed the likely balance of payments implications of oil developments during this decade for the OECD group, the OPEC members, and the less-developed countries.

As of 1972, the OECD area imported $17-3/4 billion worth of oil from OPEC countries, who had a $6-3/4 billion trade surplus with OECD. It was impossible to make accurate forecasts for several years hence, with the variations that might occur in volume and price, but the general order of magnitude would be that, by 1980, annual oil imports from OPEC would increase as follows: for North America, from $2 to $19 billion; for Europe, from $9.2 to $37 billion; and for Japan, from $2.4 to $19 billion. In total, $75 billion of oil imports from OPEC into the OECD area.

To arrive at the net balance of payment impact, one had first to deduct from that figure about $15 billion for revenues for transportation and profits of oil companies. Then there would be payments for goods and services imported by the producing countries, varying widely from one to another according to their absorptive capacities. On average, these items would total $40 billion, bringing the net figure down to $ 20 billion. To this would have to be added the producing countries' earnings on their investments, say, $5 billion. The net result would be a current account surplus for the OPEC countries in 1980 of around $25 billion with the OECD area. This would add up to something less than one-half of one per cent of the gross national products of the OECD area by that time.

The OECD group currently aimed at keeping a surplus on current account of about one-half of one per cent of GNP with the developing countries, representing our transfer of real resources to them. So, assuming no change in aid policies, the OECD area as a whole would no longer have a current account surplus, and its capital account and current account would be roughly in equilibrium. This overall picture would be very uneven, of course, if it could be split up for individual countries; some European countries would import less energy in 1980, the US and Japan much more.

However, as the US stood to benefit substantially from increased exports of goods and services to the OPEC group, and as OPEC investment funds would be flowing to the US, there was no need to be especially pessimistic about the net impact on the American balance of payments, although there was a new element of uncertainty in the picture. *

Unfortunately, the prospects for the balance of payments of the developing countries were much less encouraging. Even if they did not increase the volume of their oil imports, they would still have to absorb OPEC price increases that were estimated to eat up more than half of the official development assistance they would receive between now and 1980. The OPEC countries would thus gain reserves which they would again invest in the OECD area, which – instead of remaining in balance – would show additional surpluses gained at the expense of the developing countries. *

The latter in turn would have to cut down on their imports from OECD, giving rise to a major policy problem. As the OECD countries as a group would no longer have a current account surplus with the rest of the world, they could not expect to earn back within the OECD area additional exports as compensation for higher oil imports, and the only way to build up a current account surplus again would be by increasing capital exports to the developing countries. In short, there was no doubt that these oil developments would make it substantially more difficult to get agreement on balance of payment aims and corrective policies.

In answer to a British participant, who had challenged the basic $4 a barrel figure as being "grossly over-optimistic," the International speaker replied that it was not too far off the mark for estimate purposes. He cautioned, though, that all his figures should be taken with great reserve. For one thing, he had not made any assumption about price increases of industrial exports to OPEC countries, although he assumed they would occur as a result of inflation in the OECD area and the higher cost of energy. This would tend to cause a deterioration in terms of trade for the non-OECD world, including the OPEC countries. The British speaker countered that continued productivity increases in OECD would tend to lower the prices of our manufactured exports, worsening our terms of trade.

An American speaker pointed out that one official US estimate of the future delivered price had been as high as $5 a barrel – which was now perhaps on the low side – but that certain cost factors would reduce the net return to the producing countries by around $1. Two other American participants reported that the author of the estimate just referred to – Mr. James Akins – had subsequently said that the $5 figure would prove to be too low, and might indeed range up to $10-12.50 a barrel. *

An American speaker said that his own analysis had confirmed the broad conclusions indicated in the preceding International intervention. Most of our oil price assumptions were probably too conservative, but $12 looked outside the upper limit. Balance of payments forecasts were always bound to be wrong, especially when one tried to deal with isolated sectors, ignoring the triangular aspects that existed.

It seemed clear, though, that the US would not fare as well as Europe or Japan on its balance of payments in energy. The trade of the principal OPEC countries – those of the Persian Gulf and Africa – had historically been largely with Western Europe, and if that trend continued, the US could look forward to a $6-8 billion trade deficit. That was not an enormous figure as a percentage of GNP, but it was large in relation to recent deficits. Europe could end up with a net payments surplus by 1980 partly as a result of the North Sea, and the Japanese could cut their deficit with the proceeds of tanker construction, which might amount to $3 billion.

A British speaker warned against underestimating the dynamic effect of the huge US oil import bill. This was likely to make the Americans concerned with exports on an unprecedented scale so as to alter world trade and monetary patterns.

Reflecting on some of the figures projected above, an American participant was impressed with the community of interest of the OECD group and the vulnerable developing world in assuring the continual flow of Arab oil at a reasonable price. As this issue became more political, we should seek to capitalize on it.

B. *Consequences for the international monetary system*

The potential impact of oil developments on the world monetary system was dramatically indicated by an American participant, who said that before the end of the century some 350 billion barrels of oil would be produced in the relatively small geographical area at the headwaters of the Persian Gulf. This production would be worth from one to more than three *trillion* dollars, according to the price per barrel.

A French speaker said that the fixing of prices and the settlement of payments had to be done within the framework of a coherent monetary system, which we did not have at present. Underlying the current demands for price increases was the realization by the Arabs that the purchasing price of the dollar had recently declined substantially and might continue to do so.

An International participant mentioned that representatives of the OPEC countries were involved in the discussions of the Committee of Twenty for the reform of the monetary system. They were "talking sensible, businesslike language" in requesting a stable system which would enable them to invest their oil revenues. Both the public and private sector should seek to enlarge the scope of their meetings with financial representatives of the producing countries, not only on monetary questions but also on development assistance, where they could share significant responsibilities even if they did not become normal donors.

These remarks were seconded by an Italian speaker, who added that early reform of the monetary system was essential to solve the liquidity problem and to encourage the OPEC countries to make longer-term investments. He did not foresee an early end to the US balance of payments deficit, as the freedom it conferred on American monetary and fiscal policy would be hard to give up. Even if there were an official intention to end it, the measures employed were likely to be ineffective.

In the judgment of a Dutch commentator, the build-up of "hot money" in the Eurodollar market was making it increasingly difficult to create an efficient monetary system. So far, though, the oil money did not seem to be an especially aggravating factor, as it probably represented at most a quarter of the $100 billion Eurodollar market. In the most recent crisis on the foreign exchanges, when some $15 billion had to be taken in by the central banks of Europe and Japan, probably not more than $2-3 billion came from the Arab countries hedging against the dollar. The problem would be potentially worse, however, as larger amounts accumulated in the hands of the Arabs, especially if they clung to their preference for liquid, short-term investments. *

An American speaker agreed that there was little evidence that the official funds of Arab nations, or even of their of oil companies, had contributed to the recent large exchange movements. The monetary authorities of the producing countries had "behaved extremely conservatively and rather well."

A Belgian participant said that, while the oil producing countries had admittedly not been exclusively responsible for the "hot money" flows, they had had a sufficiently marginal role in the recent disturbances to give cause for concern. This volatile new element in the short-term market made it all the more imperative that we reorganize the monetary system. In that context, we should give serious consideration to extending the application of the two-tier exchange market (one for commercial, one for financial transactions), which had already proved its efficiency in his country.

In the view of a Canadian speaker, the OPEC countries would sooner or later become absorbed in developing their own economies, for which they would need to import our technological and material resources. Consequently there would probably not be the fundamental balance of payments disruptions that we had feared. To what extent the balances being accumulated in the meantime could be called "hot money" was a matter of speculation. The investment of short-term funds was bound to follow certain immutable laws of supply and demand.

A Norwegian intervention alluded to the difficulty of measuring the segment of the Eurodollar market that constituted "oil money", including freights from flags of convenience tonnage. Elevating the dinar to the status of a major convertible currency was a possibility that had been rumored in some quarters.

A British participant said that our work in reforming the international monetary system should not be dominated by the oil issue. Conceivably, though, the Arab countries would benefit indirectly from whatever solution the Committee of Twenty might find to the problem of international reserves. Perhaps the recent rise in the price of gold reflected the Arabs' concern about the dollar. If gold advanced to three or four times its present level, as some people were predicting, the speaker would favor letting the producing countries "have all the gold in the world at that price, if they consider that a more adequate reserve."

As big as the monetary impact of the oil situation might become in the future, it would be "only a little addition – not much more than a tenth – to the deep mess which we are in already," according to a German speaker. "We have first to solve the basic mess and then see to the oil problem, and not in the other order." Unless the US soon took impressive steps to restore international confidence in the dollar, growing amounts of central bank reserves would be set loose – and not just on the fringes of Europe, where the process had already begun, but throughout the world. We would then have to deal with a Eurodollar market of $200 billion, twice as big as it was today.

The quality of American discussion of this problem, both at home and with governments abroad, indicated that few had a convincing grasp of its complexities. American legislators and lobbyists were talking about tariffs and non-tariff barriers to trade, but the effect of such barriers had been dwarfed by the currency devaluations and revaluations of the past six years. The US had not acted quickly enough to raise interest rates to attract funds from abroad, nor did it offer incentives for the repatriation of capital gains, which were held abroad "to buy more corporations in Europe and in other places." At the same time, Americans deplored the fact that Europeans did not help them to overcome the gap in their trade balance.

Over the past several years, the US had become accustomed to consuming more than it produced, while "insane developments of structure" in Japan and Germany had led those countries to produce more than they could consume. Adjustments under the system of fixed exchange parities came too late or not at all. It was too early to say whether floating rates would work any better.

Unless confidence in the dollar returned, world monetary reform would be just "an abstract academic exercise." America's friends would help her, but first she had to set her strategy. Eventually we should work toward an international federal reserve system which could impose rules on foreign currency accounts. If the Euro-markets had been subject to regulation in the way that national banking systems were, things would not have gotten out of hand as they had done. It was important to recognize that the oil money question was merely a part of this much larger framework.

An American participant replied to various points which had been raised in the preceding intervention. He did not think that many of his compatriots regarded the forthcoming trade negotiations as a substantial mechanism for improving the US balance of payments. However, they would like to see a change in the EC's common agricultural policy and its trade preferences for Mediterranean countries and EFTA neutrals.

There were signs that the new exchange parities had "cut down to the bone," and the speaker looked for steady improvement in the US balance of payments over the next two or three years. The disparity in savings rates from one part of the world to another was disturbing, however. This suggested the need for more frequent parity changes or a really "clean float". America's propensity to consume more than she produced should be cured in time by parity changes.

Raising interest rates to bring capital home implied a deflationary monetary policy that would be difficult to pursue in the face of a 6 per cent unemployment rate. The repatriation of overseas capital gains was already subject to rather strict rules, and would probably soon be further encouraged by tax changes.

C. *Investing the new wealth of the producing countries*

According to an American participant, the OPEC countries would have a net investable accumulation of funds of more than $100 billion between now and 1980. Nearly three-quarters of that would be in Saudi Arabia; some $13 billion in Kuwait; and $11 billion in Abu Dhabi, with a native population of only about 20,000. Iran would probably spend most of its earnings, and Venezuela might even have a deficit. By the end of the decade, Saudi Arabia alone would be accumulating $20 billion annually, roughly the present stock market value of the biggest US companies.

While these were very impressive figures, they were not all that big in terms of the financial markets of the world. In 1971, the markets of 10 major countries had provided $197 billion in share capital and long-term loans, and the total of new issues in the US had been $100 billion.

The Arabs had traditionally preferred liquid, short-term securities, but the indications were that they were now seriously studying conventional, longer-term investments.

A British speaker observed that it was the nature of the Arabs and the Persians – "possibly due to centuries of rather uncertain expectations of life in those parts" – to shy away from long-term investments. "You'd have quite a job to persuade them to put a big factory in America."

A Dutch participant wondered whether a more concrete reason was not an Arab apprehension that investments abroad, in the US for example, might be blocked in case of disputes about oil dealings. The Arabs were inclined for that reason to invest rather anonymously on a short-term basis.

A German intervention had in fact contained a suggestion that the Europeans should try to create a network of mutal interests by attracting Arab oil money into industrial investment in the Community, so that "we would have some kind of leverage, something to nationalize" if relations deteriorated.

In the view of an International participant, however, it was important to limit the unpredictability and the volatility of the flows of OPEC capital towards the OECD area. We had a common interest in finding ways for the Arabs to make safe, long-term, high-yield investments which were protected against monetary instability.

A number of interventions dealt with the possibility of the OPEC countries making "downstream" investments in the petroleum industry. An American speaker reported that there was little evidence so far that the Arabs had been moving into major oil company shares, although there was no way to prevent them from doing so short of government regulation. A Canadian participant, however, thought that most countries already had, or would adopt, mechanisms that could be used to control the takeover of domestic resources.

Another American questioned the apparent assumption that it would be undesirable for the OPEC countries to acquire downstream investments in the consuming countries. Letting them have a taste of the profits would make them less anxious to appropriate and to attack the allocation of earnings as between producing, refining and distributing.

A Norwegian participant challenged the forecast contained in the American working paper that the Arabs would expand their ownership and control of oil tankers. Unless they could persuade someone to sell them tankers, they would have to have them built, which would take four to five years. Then they would have trouble manning them, as the present sailors in the world did not like the Arabs and would not sail for them.

Another Norwegian and a British participant argued that the Arabs could very easily man their ships, and an Italian speaker reported that Colonel Qadhafi had proposed a Maltese shipyard for the construction of Arab tankers. The author of the American working paper predicted that Arab-owned tankers would be "the wave of the future for a substantial part of new exports," operated by the same crews who were now manning the fleets sailing under flags of convenience. The Japanese were already trying to obtain special supply concessions from the Arabs by offering to build them tankers, as well as refineries and petrochemical facilities.

A British speaker referred to the dilemma of the oil companies, who were caught between the producing and consuming countries, each insisting that oil be carried in their own ships.

The author of the International working paper said that the desire of many of the oil producing countries to diversify their economies gave an opportunity to Europe and America to be real economic partners to them – something more than just buyers of crude oil. One could envisage, for instance, financial and technical collaboration for the creation of petrochemical industries in the Middle East. The speaker also called for European Community cooperation with the producing countries in assisting other countries in the Third World, such as by channelling aid budgets into development loan guarantee funds, which would provide greater "leverage" than outright grants.

The notion of building up a petrochemical industry on the base of the resources of oil and gas producing countries, including the Soviet Union, also appealed to an Italian participant, but a British speaker pointed out that there was already an oversupply of petrochemicals in the consuming countries.

Transfer of part of the oil revenues from the Eurodollar market to the development of the Arab countries was urged in an Italian intervention. Egypt, which would soon have 50 million inhabitants, was especially needy. *

A Dutch participant – who had advocated involving the OPEC countries in the trade and monetary councils of the world, including GATT – said that it would be particularly helpful if we could advise them on investment strategies. "A scheme for us to use their money" was the wrong approach, though. The better philosophy was simply that they had a lot to do in their own countries and we could help them.

A French speaker proposed the creation of a sort of international office or clearing house to channel the unstable so-called "hot money" from oil revenues into sound long-term investments at high yields. Preference would be given to reinvestment in the development projects of the producing country receiving the funds, but a measure of order and control would be achieved through the clearing house formula. Most countries already had in place the exchange control mechanisms necessary to implement such a plan.

This ingenious suggestion was supported by a Canadian and a British participant, although the latter thought that it, like other proposals, would take a very long time to develop.

A Belgian speaker was frankly sceptical about any scheme which involved putting funds into a complementary capital circuit that might be regarded by investors as a sort of "cage" which could be slammed shut in times of crisis. Moreover, he felt that we already had at our disposal enough institutions and mechanisms, such as the International Finance Corporation, ADELA, and various regional development banks. It was more a question of making better use of them.

D. *Implications for the economies of the consuming countries*

The Belgian speaker went on to observe that the inflationary effect of increases in the price of oil and energy was bound to weigh heavily on the sharing of national income in all the consuming countries. The situation would be vastly different from that of the low cost energy days of 15 and 20 years ago. We would all be tempted to do what the US had been criticized for: consuming more than we produced.

That analysis was disputed by a Dutch participant, who pointed out that the energy content of manufactured goods was still relatively modest, and that the impact of increased Middle Eastern government takes on the total price of energy was marginal, as the major costs, including taxes, were in the consuming countries. Inflation was concededly a serious problem, but the effect of the oil crisis on it was not as drastic as might have been expected.

An International speaker called attention to the dynamic relationship between oil price increases and the development of new forms and sources of energy, both in the US and the developing countries. How the enormous costs of that development would fit in with the overall financing needs of the

industrial world was an important subject for study, in the view of a Netherland:
participant.

*

* *

The consensus of the discussion could be said to have been summed up b; an American speaker who had concluded that the only solution to the energ; crisis was "a balanced program . . . at least a dozen different things pu together." There was no single panacea, no rabbit to be pulled out of : magician's hat, so to speak.

Our problem, he said, was "to find how to get the flexibility of the privat system working within reasonable government frameworks, but not as a publi corporation, to do the jobs that have to be done in the short and intermediat future."

*

* *