FORSCHUNGSINST. D. DEUTSCHEN GESELLSCHAFT
FÜR AUSWÄRTIGE POLITIK

INCONTRO SU PROBLEMI ENERGETICI

(COMMISSIONE TRILATERALE)

22/10/1974 — BONN

HA PARTECIPATO: C. MERLINI

3699

"INCONTRO SU PROBLEMI ENERGETICI"
DGAP, Bonn, 22/X/1974

(1) Campbell, John/de Carmoy, Guy/Kondo, shinichi: "Energy: The imperative for a trilateral approach"
(2) de Carmoy, Guy: "European-American relations"
(3) Momoi, Makoto: "The energy problem and alliance systems: Japan"
(4) Trilateral Commission: "International implications of the energy crisis"
(5) Trilateral Commission: "Draft report on energy"

TRILATERAL TASK FORCE ON THE POLITICAL

AND

INTERNATIONAL IMPLICATIONS OF THE ENERGY CRISIS

Energy: The Imperative For A Trilateral Approach

John C. Campbell
Guy de Carmoy
Shinichi Kondo

June 1974

This report has been prepared for the Trilateral Commission and is released under its auspices. The authors, who are experts from North America, Western Europe and Japan, have been free to present their own views. The Commission will utilize the report in making any proposals or recommendations of its own. It is making the report available for wider distribution as a contribution to informed discussion and handling of the issues treated.

THE RAPPORTEURS

JOHN C. CAMPBELL ... Born October 8, 1911, New York City; A.B., Harvard, 1933; M.A., 1936; Ph.D., 1940; Specialist in Eastern Europe, U.S. Department of State, 1942-46; Secretary of the U.S. Delegation and Political Adviser at the Council of Foreign Ministers and at the Paris Peace Conference, 1946; Political Adviser, United States delegation to the Danube Conference, 1948; Officer in charge of Balkan Affairs, Member of the Policy Planning Staff, Department of State, 1949-55; Director of Policy Studies and Senior Research Fellow at the Council on Foreign Relations since 1955; Consultant and Adviser to the Department of State since 1963; Member of the Policy Planning Council, 1967-68; author of numerous books and articles on U.S. foreign policy, Eastern Europe, and the Middle East.

GUY DE CARMOY ... Born February 20, 1907, Paris; Licencié ès lettres et en droit, and Diplomé de l'Ecole libre des sciences politiques, University of Paris; Inspector of Finances, 1930-60; Acting Adminstrator at the International Bank for Reconstruction and Development, 1946-48; Director, OECD, 1948-52; Administrator of the Banque des interêts francais, 1962-67; Professor, Institut d'Etudes Politiques, since 1961; currently Professor, European Institute of Business Administration, Fontainebleau; author of Les Politiques etrangères de la France, 1946-1966 (1967), Dossier europeen de l'energie (1971), and many other works.

SHINICHI KONDO ... Born 1910; graduated from Tokyo University, 1934; entered the Japanese Foreign Office, 1939; Consul, New York City, 1941; held a variety of posts in the Foreign Ministry, 1941-61; appointed Ambassador to Denmark, 1961; Member of the Japanese delegation to the United Nations, 1965; appointed Deputy Vice Minister of Foreign Affairs, 1967; Ambassador to Canada, 1969-72; currently with the Mitsubishi Corporation, Tokyo.

THE TRILATERAL PROCESS

The report which follows is the joint responsibility of the three rapporteurs of the Trilateral Task Force on the Political and International Implications of the Energy Crisis, with Mr. John C. Campbell serving as principal drafter.

Although only the three rapporteurs are responsible for the analysis and conclusions, they were aided in their task by extensive trilateral consultations held during 1974 in Tokyo, Brussels and New York. The rapporteurs also took part in a conference on energy held in Milan in which a number of prominent government officials, businessmen and academics from Europe and the Middle East took part. Among those consulted were:

Zbigniew Brzezinski, Director, The Trilateral Commission
George S. Franklin, North American Secretary, The Trilateral Commission
Wolfgang Hager, European Secretary, The Trilateral Commission
Rokuro Ishikawa, Executive Vice President, Kajima Corporation
Paul F. Langer, Senior Social Scientist, The RAND Corporation
Walter J. Levy, President, W.J. Levy Consultants Corporation, Inc.
Kiichi Miyazawa, Member of the Diet (LDP); former Minister of International Trade and Industry
Yoshihiko Morozumi, Vice Chairman, Committee for Energy Policy and Promotion; former Vice Minister of International Trade and Industry
Sohei Nakayama, Counsellor, Industrial Bank of Japan
M.V. Posner, Director of Studies, Pembroke College, Cambridge University
Ronald Ritchie, Chairman, Institute for Research on Public Policy, Montreal
Kiichi Saeki, President, Nomura Research Institute of Technology and Economics
Masao Sakisaka, President, Institute of Energy Economics/Japan
Dieter Schmitt, Energy Institute of Cologne, University of Cologne
Pierre Uri, Atlantic Institute for International Affairs, Paris
Carroll L. Wilson, Professor of Management, Alfred P. Sloan School of Management, Massachusetts Institute of Technology

Energy: The Imperative for a Trilateral Approach -- Summary of the Report

John C. Campbell, Guy de Carmoy, Shinichi Kondo
June 1974

The Trilateral Task Force Report on the Political and International Implications of the Energy Crisis assumes that the era of cheap and plentiful oil is over. The industrial countries face major problems of adjustment to uncertain energy supplies, high costs, and new requirements in political relations. Some of these problems are immediate; some are for the coming decade of continuing dependence on Middle East oil; some involve planning for the longer run. They can be met successfully only with policies elaborated in concert rather than in competition. In economics our countries must contend with the short and long term effects of shortages and price increases on their national economies and on the international trading and monetary system, and the need to make early decisions on the development of new sources of energy. In politics, the trend toward politicization of international economic relations will be strengthened by the situation of relative scarcity in energy. Policies aimed at inducing the producers to keep producing and exporting oil will be needed, as will efforts to avert calamity in countries unable to meet the high price of oil. Above all, the trilateral countries must cope with mounting pressures at home and modify accepted habits and lifestyles, while avoiding destructive competition among themselves and preserving their democratic institutions.

The relative positions of the three regions - Europe is threatened with economic and financial crisis at a time of political weakness and disunity. Japan is highly vulnerable because of its energy dependence. The U.S. is in a comparatively strong position, but it cannot take refuge in a policy of self-sufficiency and display unconcern for Europe and Japan without provoking reactions adverse to all. Europe and Japan cannot expect U.S. assistance unless they impose strict measures

on themselves. Vigorous coordinated action can help them all to reduce their oil dependence on the Middle East in the next decade.

The imperative to cooperation suggests a common long-range strategy and the following specific recommendations. (1) Conservation and efficiency of energy use -- Governments and private bodies should develop conservation programs on a priority basis, including investment, joint research, and generally agreed targets. (2) Assuring safe and adequate supplies -- Trilateral countries should coordinate policies to maximize bargaining power with the oil-exporting states and create inducements to keeping up supplies, and to develop alternative sources. (3) Emergency sharing -- They should agree now on a plan including (a) the definition of an emergency, (b) stockpiling, (c) conservation, and (d) allocation of supplies. (4) Finance -- The consuming countries should aim to meet the impact of high oil prices by increasing exports to producers, recycling the latters' balance-of-payments surplus funds to the countries which incurred the deficits, and providing help to those threatened with financial collapse. (5) Sharing of technology and joint R & D -- Governments must promote an extensive sharing of technology designed to increase efficiency and develop new energy sources. Priorities in research have to be established on the main lines of effort in developing sources of energy for the post-oil age.

In their relations with oil-producing countries, the consuming countries must try to build a continuing relationship in which both sides have a stake. This collaboration should look ahead to the time when the oil age fades out. Bilateral deals or regional approaches should take place within an agreed strategy serving the interests of the trilateral countries as a whole. On political matters, a greater accommodation of approaches to such questions as the Arab-Israeli conflict or

arms sales to Persian Gulf states would contribute to harmonizing oil policy with political and military objectives. The Middle East states should be encouraged to view their oil policies in the broader context of security and cooperation.

In their relations with the U.S.S.R. and China, the Trilateral countries should explore the possibilities of obtaining increased energy supplies from them while avoiding any substantial dependence on them. The high costs and risks involved should be weighed against comparable investments elsewhere. In their relations with the LDC's, the developed countries should join in measures, to which the oil-producing countries should also contribute, to help the poorest nations threatened with disaster by price increases in oil and other essential products.

A master strategy is needed to set broad lines of policy for the trilateral countries on the energy problem. An energy agency, logically one associated with the OECD, is required for consultation and coordination of policies.

ENERGY: THE IMPERATIVE FOR A TRILATERAL APPROACH

First Report of the
Trilateral Task Force on the Political
and
International Implications of the Energy Crisis

I. The Scope of the Problem

The energy crisis confronting the nations of Western Europe, North America and Japan is both specific and general, immediate and long-range. In its simplest and most urgent form it concerns the shortages of supply and the staggering increases in the price of oil with which each country has had to contend within the past year. More broadly, it has to do with shocks which these developments and our governments' attempts to cope with them may inflict on the world's monetary and trading system. And in the longer run the crisis poses fundamental questions about how our expanding industrial societies, which in the past quarter century have been fuelled increasingly by cheap and plentiful oil, will fare in the coming decade when oil supplies are neither cheap nor secure, and in the more distant future when they have virtually disappeared.

The war of October 1973 in the Middle East and its accompaniment of embargoes, cutbacks in oil production, and rises in price did not create the energy problem. These events speeded up trends already visible, gave them a sharp political twist, and revealed with merciless clarity the vulnerability of the industrial countries. It was evident that these countries could not go on indefinitely at the rate at which their consumption of energy had been expanding since 1950; that expansion

would have had to come mainly from imported oil, its availability uncertain and its price inordinately high.

The pervasive influence of the energy crisis on the entire fabric of national and international economic life will inevitably have political consequences and will require hard political decisions. Hence the importance, for the governments and peoples of the Trilateral countries, of seeing the magnitude and scope of the problem. When they see it, we believe they will find no viable alternative to a common approach.

This Report first examines the economics of the future energy picture, then the politics of it, and finally makes some proposals. These proposals are not a panoply of detailed policy recommendations. We considered it more important at this stage to establish common purposes and set the general directions for policy.

A. Economics

It is useful to distinguish two time perspectives, one for the next ten years or so, and the other running to the end of the century and into the next.

In the first period the economy of the industrialized Trilateral region as a whole will continue to be dependent on oil imports from OPEC (Organization of Oil Exporting Countries) sources. Our societies are based on high energy consumption. They cannot suffer a drastic drop in available supply or stagnation in the rate of energy growth without serious economic and social consequences. Against this structural demand there is an insufficiency of reliable supply, since a critical part of

their current supply is subject to decisions or access and or price which are out of their control and can be arbitrarily made. Because substitute sources of supply will take years to develop, the period of continued dependence will last into the 1980s for virtually all the Trilateral countries and beyond 1985 for most of them.

The world's supply of oil is sufficient to meet all import requirements over the next ten years. There could even be a potential surplus, provided the OPEC countries continue to export and the consuming countries take effective measures of conservation and successfully pursue the development of oil in non-OPEC countries as well as of other sources of energy. Whether imports are adequate will largely depend on the policies of OPEC countries, which will be determined by such factors as need for revenue, the price trend, investment opportunities and political motivation.

The magnitude of the anticipated gap depends also on how one estimates the growth in requirements for imported oil. Projections made in the early 1970s, based on what had been normal rates of growth in energy consumption during the two previous decades, set U.S. requirements in 1985 in the vicinity of 13 million barrels per day, Western Europe's at about 23 million, and Japan's at about 11 million. All three regions, in those circumstances, would be increasingly and critically dependent on imports, which would have to come mainly from the Middle East. As a result of experience and further study since the autumn of 1973, such projections can be revised to take account of anticipated conservation, greater efficiency in energy use, increased domestic oil and gas production, import substitution, and higher prices. Much more can be accomplished by such measures in the United States, however, than in Europe or Japan. The U.S. import requirements might be reduced to less than 5 million b/d, perhaps as little as 3 million, by 1985 or even by 1980. Western Europe's imports would still be between 15 and 20 million b/d, and Japan's between 9 & 10 millio

The question of price may be even more difficult, for the drastic rise

ir prices determined by OPEC at the end of 1973 inevitably upset the economic equilibrium of the consuming countries and foreordained a massive transfer of financial assets, and thus of economic power, from them to the oil-producing countries. The anticipated additional oil bill, for 1974 alone, will be about $40 to $50 billion for the industrial countries and $10 billion for the developing countries unfortunate enough not to be exporters of oil. The effects on the international monetary system, on currency values, on rates of inflation, on food and fertilizer production, and on living standards are impossible to calculate but bound to impose strains of an unprecedented character.

Looking well beyond the immediate problems and those of the next decade, we can see the end of the hydrocarbon age. The date cannot be fixed because the size of new discoveries of oil and gas cannot be predicted, but with consumption outrunning additions to proved reserves the handwriting is on the wall. The world must be prepared, accordingly, to make the transition 30 or 40 years hence to an economy based primarily on coal (and its derivatives) and on nuclear power. The goal will be to reach, without a disastrous gap, the age when abundant renewable energy is available for the world's use through new methods such as breeder reactors, controlled nuclear fusion, or harnessing the power of the sun. The conditioning factors for supply of energy over the long term are investment, technology, and ecology, and the initial decisions have to be made now.

The economic problems may seem simple -- how to restrain demand and maximize supply at tolerable cost and where to put investment in alternatives to oil -- but in fact are complex because they combine short, medium, and long-term considerations and at the same time involve a balancing of

financial, technological and other factors. They will require on the part of our governments considered and far-reaching decisions, which should serve to promote international interests rather than merely to satisfy their short-term national interests.

B. Politics

In the necessary effort to bring the world through the next decade and on toward the age of nuclear energy without major upheavals, the advanced industrial societies of North America, Europe and Japan have a deep involvement and special responsibilities. With economies which are interdependent and political interests which in the past have been compatible and mutually supporting, they have an overriding concern with the good health of their relations among themselves and with the preservation of a workable trading system and an effective international monetary structure, both of which are already under stress.

It seems clear that international economic relations, with a strong assist from the energy crisis, will take on an increasingly political character. This is already apparent in the relations between oil-consuming and oil-producing states. The private oil companies, where they have not already been taken over, can no longer make decisions on such matters as how much they will produce in the latter states or at what price. The governments of consuming countries do not have much to say about those matters either, but they know now that how to get oil is their problem and that they have to deal with it both in discussions with each other and in negotiations with producing states.

How are the OPEC members, mainly the big Persian Gulf producers, to be persuaded to keep up the supplies of oil? All of them know that their oil reserves are finite. They will decide for themselves on the rate at which they use them up. Some, with major economic development programs, may prefer a high level of oil exports in order to maintain a high level of income. Others, with smaller populations and less ambitious programs, may be reluctant to push production beyond the point which meets their own needs for money income. Some may restrict production in order to prolong the life of their reserves. All will wish to keep prices up. And some may wish at one time or another to determine policy on production and export of oil on essentially political grounds. The partial relaxation of Arab embargoes and production cutbacks early in 1974 was tactical rather than strategic; the Arab oil-producing states have said that they will use the "oil weapon" again if they find it necessary.

Similarly in the case of relations with the less developed countries which are not oil-producers, the effects of the energy crisis will bring governments of the Trilateral countries, by choice or by circumstance, into increasing involvement in international economic relations. The rise in oil prices threatens the world's poorer countries with economic ruin, and resultart social and political upheaval. They will seek to avert such a disaster by mobilizing political pressure on the rest of the world for massive concessional aid and by trying to apply the OPEC method to any valued raw materials they themselves may have. The developed countries and the newly rich oil-producers will have to make basic political decisions on what to do about it.

The end of the era of cheap and plentiful energy is most striking, perhaps, in its impact within our own countries. One cannot predict how far-reaching the economic and social effects will be. Inflation, industrial slowdown and unemployment may bring social unrest, further loss of confidence in governments, and political disorder. What is more easily predictable is that under these multifarious dislocations and pressures the lines between private decision and public control, between the freedom of individuals to live their own lives and the social requirement for rationality and equity in the use of scarce resources, will come under strain. These are practical rather than philosophical questions. They will challenge the ability of our societies to maintain democratic institutions and the essentials of free enterprise necessary to an efficient economy.

Over the long run the energy problem poses fundamental questions about rates of growth, conservation of resources, the balance between economic and environmental values, and the creation or refashioning of institutional structures adequate to the challenge of new demands. Within national economies, under pressure of high-cost energy, governments and peoples will have to take decisions on allocation of resources, on priorities among different forms of production and subsidies to investment, on revamping of transportation systems, on patterns of location for industry, public services, and housing.

These are, in the common view, problems of domestic policy, and we do not pretend to judge how each country will succeed in dealing with them. But the line between domestic and foreign policy is unclear, and the inclination is always present to have the cost paid by someone else. At

such a time it will require extraordinary leadership on the part of governments, as well as extraordinary public understanding and discipline, to avoid seemingly simple solutions which promise, in the short run, more imported oil or higher exports or a cheaper currency. For such a course will lead only to destructive competition in scrambling for oil, pushing exports and shutting off imports, and devaluing currencies.

It is hard to avoid the conclusion that the greatest challenge of the energy crisis lies in the relations among the developed nations of the Trilateral region. Thus far it has done more to disrupt the European Community than to pull it together. Restrictive measures taken by Italy under severe economic pressure may be followed by similar moves by other states, setting in motion a serious disintegrating trend in the E.E.C. Energy questions have also strained Europe's and Japan's relations with the United States. Unless these nations can establish the necessary cooperation with each other, they can hardly be effective in dealing with the rest of the world, the oil-producing countries especially. In order to have a realistic basis for such collaboration, it is necessary to see what the respective positions of the different Trilateral countries are and what are the factors of competition and of common interest to be taken into account.

C. Relative Positions of the Three Regions

The balance among the three regions should be conceived first of all in terms of energy resources, but also in terms of political and military influence, economic and monetary strength, and technological capabilities.

The position of North America is relatively strong. The United States and Canada have very large potential resources (oil, natural gas, coal, oil shale, tar sands) which if developed could produce energy well beyond their own needs. The United States will not be critically dependent on Middle East oil, which made up only 6 percent of primary energy consumption in 1973, unless it allows the whole of its increment in energy growth to come from that source. It has the natural resources, the financial means, the technological capacity and presumably the political will to become virtually self-sufficient in energy by 1985 and to remain so. The net supplementary cost of the oil imports may amount to $10 billion in 1974, but the balance of current account with the oil-producing countries may be running the other way within a year or two because of their desire for American goods and the attractiveness of the American market for long-term investments. The dollar is emerging from the energy crisis stronger than before.

Canada is roughly self-sufficient in energy now (imports of oil to eastern Canada in the past were generally matched by exports from western Canada) and likely to remain so. When Alberta's conventional oil sources begin to taper off, they will probably be more than replaced by oil and gas from the Artic, and eventually, oil from the Athabasca tar sands. Canadian governments of whatever political stripe are likely to be developing a national energy policy carefully attuned to Canada's needs, and to be chary of any rapid exploitation of its resources by foreign capital largely for foreign markets.

The United States is the strong partner in the Atlantic alliance and in its security arrangements with Japan. Its naval power in the Mediterranean and the Indian Ocean is the only military counterweight to Soviet power in those areas. It is the main supplier of arms to Israel, Jordan, Iran, and other Middle East countries and is regarded by a number of those states as a mainstay of their security. The United States also has considerable political and diplomatic leverage in the Arab-Israeli conflict through its influence with both sides. Although its policies of support for Israel have tended in the past to undermine its relations with the Arab states, including the oil-producers, its success in arranging interim settlements between that country and Egypt and Syria has strengthened its position in the area as a whole.

Western Europe is in a much weaker position, both politically and in respect of energy. Although the E.E.C. functions as a common trading unit, it lacks strong political institutions. Neither the Community nor its member states have significant military influence in the Middle East. They have an interest in a peaceful settlement of the Arab-Israeli conflict but have not been able to play an effective part in bringing it about through negotiation.

The dominant fact of Western Europe's energy situation is its dependence on Middle East oil (60 percent of OECD Europe's primary energy consumption in 1973). This proportion may be somewhat reduced in the next decade through the development of North Sea oil and gas and the pursuit of strict and consistent policies on the use of energy, but it is doubtful that dependence on external supplies will be brought below 45 percent by 1985. This relatively weak position is accentuated by the absence of a common energy policy in the E.E.C. and by the tendency of individual

governments to act on their own in matters crucial to each others' welfare. One has therefore to consider separately the positions and policies of individual European countries.

Great Britain and the Federal Republic of Germany are about 50 percent self-sufficient in primary energy consumption, while France and Italy are about 80 percent dependent. Britain will have difficulty in the next few years in meeting its oil import bill at a time of serious balance-of-payments difficulties and uncertainty over continued membership in E.E.C., but its longer-term prospects are favorable because of North Sea oil and gas. Germany, at least in the short term, can balance its trade in spite of the high cost of oil thanks to its formidable export potential and large monetary reserves; but Germany may lose export markets as other countries take defensive measures to protect their own industries and pay for imported oil.

France is faced with large trade deficits, is investing heavily in nuclear plants, and has resorted to substantial external borrowing. Its position is essentially weak despite some positive elements such as comparatively large gold reserves (which will jump if there is a revaluation at or around the market price), heavy sales of arms to oil-producing countries, and a pro-Arab foreign policy that might win special favors. The plight of Italy is the most serious. Unable to stop the drain on its balance-of-payments despite heavy borrowing, it has introduced import restrictions to the detriment of its partners in E.E.C. as a short-term palliative measure. Italy's fundamental problems remain unsolved, and its situation is likely to get worse.

Europe thus faces a bleak prospect. The increase in its oil import bill for 1974 is estimated at $22 billion. With the exception of Germany

and perhaps the Netherlands, the E. E. C. countries face the alternatives of (a) accepting a marked depreciation of their currencies, (b) resorting to external borrowing at unprecedented levels, or (c) reducing drastically their imports of energy and of non-essentials. They will probably combine all three, and the end result could be a monetary collapse.

Japan is more dependent than Western Europe as a whole on external supplies of energy -- about 75 percent of domestic consumption. All of its petroleum is imported, over 80 percent of it from the Middle East. Thus Japan is the most vulnerable of all the industrial nations and does not expect the major international oil companies to be able to guarantee the needed volume of supplies. High prices for oil (the import bill is likely to increase by $8-10 billion in 1974) have already led to a weakening of the previously strong trading position, depreciation of the currency, and a further rise in inflation. Its ability to continue meeting its oil bill will depend on its long-range export possibilities and on the survival of the world free trading system. Japan will try to develop its domestic energy resources, principally nuclear energy, as well as to diversify its external sources of supply, but it cannot escape from its position of dependence on and vulnerability to overseas supply. Therefore, it is vitally important for Japan to maintain and develop cooperative relations with oil-producing countries. However, Japan has not held such political and military leverage in the Middle East as have the United States and, in lesser degree, some of the Western European countries.

For any and all of the oil-consuming countries, the prospect of massive exports to producing countries is very attractive, as is the idea of getting back as investment the funds they pay out for oil. They are, however, in competition with each other in exports and in attracting

investments, and those in the stronger positions are likely to have the advantage. Thus the United States has an edge in the selling of arms, for reasons of technology and political influence. Germany and Japan have the best possibilities for selling equipment. And investments of oil money from the Middle East are more likely to flow to America or Germany rather than to countries with weaker currencies and dimmer prospects. The absence of strong European institutions,mainly an economic and monetary union, works against the recycling of funds to Europe.

This factual picture of differing economic and financial positions of the countries and regions of the Trilateral area must be understood both for its political reality and for its disturbing implications. For some years ahead the United States, Canada, and later Great Britain will feel a certain confidence in the possession of energy resources which the other will not have. Germany and Japan may have compensating advantages in the competitive strength of their economies. Intensive competition, if it is uncontrolled, can turn out very badly for those in a weaker position. Competition should therefore be matched by cooperation.

Cooperation, of course, has its limits; for example, it cannot determine where Arab investors will put their money or to whom private bankers will make loans. The stronger countries will not be inclined to engage in an unending series of operations to rescue the weaker. Yet all have a stake in the survival of all, and in the survival of a viable economic order in the world. The United States could not be indifferent to a monetary collapse in Europe. In the framework of a long-term approach which makes sense for all, which offers a constructive alternative to the uncertainty and vulnerability of the period immediately ahead, it becomes

politically possible and indeed necessary for the stronger economies to aid the weaker, provided the latter, through conservation of energy and in other ways, are pulling their weight and not merely getting a free ride. —

II. The Need for Cooperation

The Trilateral countries should go forward together in a joint commitment to develop energy and to meet its high cost, with a plan covering the next 20 years or so. They will not succeed if they have conflicting strategies.

The energy problem requires not only a series of defensive measures against shortage, dislocation, inflation, and the excesses of economic nationalism, but also a positive strategy which sets priorities and assures the rational, long-term development of energy resources in ways compatible with democratic freedoms. Market forces will provide much of the motive power, but it is necessary to set the context within which private decisions on investment, for example, can be made and market forces can operate to the best advantage. The overall strategy must take the form of public policy based on the conscious choice and dedicated effort of governments and peoples, first of all among the advanced industrial nations but with full consideration for the interests of other nations and an open invitation for their cooperation.

At the Washington conference of February 1974 the countries of the three regions (except France) agreed on the need for "a comprehensive action program to deal with all facets of the world energy situation by cooperative measures." Based on that agreement a coordinating group was established,

and work goes forward in the O.E.C.D. and in ad hoc working groups. It is not our purpose here to review or to judge this work in its present early stages. This report will concentrate on the overall approach to the problem, the need to establish long-term goals, and the specific fields in which early and effective action is essential.

1. Conservation and efficient use of energy

The consuming countries should intensify and coordinate their efforts for the more efficient use of energy, setting specific targets and working out plans for investment, technology and public policy to achieve them.

We stress this subject both for its promise of actual results and for its important psychological effects. Avoidance of waste and increasing efficiency in the use of energy are mandatory in an age of scarcity and high cost, when many systems and methods unattractive at earlier prices become feasible and desirable. Much can be done without changing life-styles, and more can be done with some changes. Extravagance in personal consumption is no essential attribute of a free society; indeed, to trim unnecessary fat may have social as well as economic benefits. Economic incentive will provide the main motivation, but governments will have to set priorities for the use of energy, limit the consumption of certain goods, engage in planning, pass legislation, and vote funds in such fields as mass transit.

We should recognize that the consumption of energy cannot be expected or permitted to grow exponentially, as it has in the past, at a rate which would project a doubling of U.S. demand between 1970 and 1985, and a

doubling again by 2000, and even higher rates of growth for Europe and Japan. Holding down demand for energy is one of the surest ways, within its limits, of coping with the problem of supply. Some measures can be taken at once, without heavy investment. In other cases, investment in efficiency of use will be much less than the investment in a corresponding increase in supply. Conservation is also a method which gives rise to a minimum of international controversy and can induce habits of cooperation. Improvements in energy efficiency should be widely applicable in industry, transportation, housing, and electric power production, with much of the cooperation carried out by private firms and research organizations. Joint research should go forward with both public and private support.

Obviously, demand cannot be cut in the same precise proportions in each country. Geographic, economic and social factors differ. Japan is under greater pressure to save energy than the United States or Canada, but has less margin for doing so. Ten percent saving from past levels of consumption is within reach of all. Although formal international agreement on fixed standards of conservation would be hard to attain and probably not necessary, governments should nevertheless set generally agreed targets, which would not necessarily be the same for each country. Without roughly comparable levels of effort it will be difficult to have an effective sharing of supplies in an emergency.

2. Assuring safe and adequate supplies

To assure adequate supplies, our nations will have to find the most effective combination of bargaining power and mutual interest to encourage the continued availability

of OPEC oil over the next decade, and will have to take as soon as possible the initial decisions on development of alternative sources of energy elsewhere, especially in the Trilateral countries themselves.

Here there is a double set of problems. The first involves measures to develop supplies within the Trilateral area itself and in areas deemed relatively safe from interruption. The second involves doing what is possible to assure the continued flow of oil from the principal exporting countries now members of OPEC. The two problems are related in that progress toward self-sufficiency and in broadening the base of supplies narrows the market for OPEC oil and may increase the incentives for continuing to supply it. Yet economic bargaining power on the consumer side will still be limited owing to the quasi-monopoly position of the producers. The consuming countries should offer all the incentives they reasonably can, such as the sale of capital equipment and technical skills for development programs, or in investment projects outside national borders for those like Saudi Arabia with income-earning capacity surplus to their own needs for development.

Such arrangements cannot guarantee the continued flow of oil imports, especially if political developments in the Middle East bring Arab states once more to the use of the "oil weapon". The consumers will have the best chance of coping with all contingencies if they maintain solidarity among themselves both to set the framework of cooperation with the producing states and to face cutbacks and embargoes if and when they are imposed.

The producing states should know that to cause economic breakdown in the industrial countries by withholding supplies or by sky-high prices cannot be in their own interest, and that economic relations must be seen in the context of overall political and security interests on both sides.

In the interest of larger and more diverse supplies, the consuming countries, and in particular their oil companies, should look to the possibilities of exploration and development of oil and gas in such areas as offshore Asia, Africa, and South America, where the political hazards may be lower than in the Middle East. Joint projects involving a number of governments and companies, working with the sovereign local governments, might be the most promising approach. With Venezuela's consent, a major endeavor of this kind to develop oil from the Orinoco tar belt could be a boon to the world oil supply of the future.

Within the Trilateral area those countries with significant energy resources should develop them. There will be a common interest in having the United States move ahead with coal production, coal gasification and liquefaction, oil shale, and additional oil and gas; Canada with hydro-electric power, Arctic gas, and tar sands; Britain and Norway with North Sea oil and gas; and all with nuclear energy. Whatever increases the total supply should benefit the entire community. There will be a common interest also in pursuing some of these endeavors in joint projects involving, for example, European and Japanese participation in development of coal resources in the United States, Canada and Australia, or U.S., European, and Japanese participation in the development of Canada's tar sands.

The United States, Canada and Great Britain, primarily concerned with use of their resources in the light of their own long-term needs, may be reluctant to include others or to make commitments regarding future export of the product. We believe, however, that they should allow outside participation in the development of resources and free marketing of energy products, especially since the resentments fed by unilateralism and dog-in-the-manger policies would adversely affect the spirit and practice of cooperation among the consumer countries.

The need for investment in all kinds of energy over periods up to 20 years is such that cooperation for reducing costs is essential, and joint planning is required to assure coordination of long-range policies. One cardinal point in respect of supply is that the industrial countries, having made the decision to develop high-cost energy as the alternative to and eventual replacement for imported oil, have to stick with their decision. They cannot relax, without heed for the morrow, at times when the oil is flowing in. Those who undertake the investments must have assurance that the projects will go on and the products will be marketed, even if the oil-producing states should drop their price below that level.

3. Sharing in an emergency

Our governments should be prepared for a situation of enforced scarcity, and therefore should agree on (a) the conditions which will constitute an emergency; (b) a stockpiling program; (c) emergency production plans;

(d) special conservation measures and (e) a plan for the allocation of supplies

The experience in 1973-1974 showed that when an emergency occurs it is too late to establish an effective sharing plan. The private companies did well in the distribution of available supplies, but they did not seek that authority and do not want it in the future. To make a plan for the next such shortage is a concrete, feasible and necessary task which governments can perform now.

The sharing plan should be based on need, taking into account both consumption and import patterns. If the emergency is marked by embargoes or other discrimination on the part of producing countries in supplying oil, the sharing plan should have the effect of spreading on an agreed basis the consequences of such unequal treatment, even at the risk of further measures limiting the total supply. That idea may be difficult to apply in practice, but it should be accepted as a guiding principle. If the opposite concept of go-it-alone prevails in this field of energy policy, it will surely prevail in others as well.

4. The financial impact

Action by governments and by international financial institutions will be needed to supplement the banking system in meeting the impact of increased oil prices on the economies of consuming countries and on the international monetary and trade structure.

Meeting the higher cost of imported oil is both an immediate and a long-term problem. It has no easily discernible solution. Short-term

borrowing may get some importing countries through their immediate financial crises but merely puts off the day of reckoning. Industrial societies cannot cut oil imports drastically to fit their pocketbooks because the shock to their economies would reduce still further their ability to pay. They will do what they can do to increase exports to producing countries, but even the most rapid increases of imports by OPEC countries must lag far behind the explosive growth of their export earnings. In trade, as in the "recycling" of surplus funds through their investment in consuming countries, the money is not likely to flow through the banking system back to the countries which need it most.

The unavoidable result of the present high price for imported oil is that some countries of the Trilateral region will find great difficulty in paying for oil and their other needed imports over any extended period and may exhaust their credit. At the very least, in the absence of cooperative efforts to ease their burden, they will be forced into nationalistic measures of import limitation, dumping, and currency devaluation, provoking retaliatory and competitive moves by other countries. This is a situation of urgency requiring common approaches within the European Community and between the Community, the United States and Japan. In the short and medium term the nations which are financially stronger will have to help those threatened with crisis, or all will in time be in crisis.

Individually and in concert, the Trilateral countries must do what they can to combat the effects of high oil prices by all possible measures of conservation and import substitution. Yet as long as the dependence on imports for a vital portion of energy requirements exists, the producing

countries can more or less set the price they want. Wishing their oil reserves to last, they will have a continuing interest in getting more money for less oil.

The possibilities of reduction in oil prices lie in (a) competition among producing states anxious to maximize income but unable to agree through OPEC on manipulating exports and prices to that end, or (b) recognition by the producers of the global consequences of depression and possible economic breakdown in the industrial countries. In such circumstances one or more of the major producers might agree to lower the price of oil or to accept a scheme for deferral of a portion of the payments. But the only sure way to be relieved of paying tribute to the producers is to proceed seriously with development of alternative sources of energy. This will be high-cost energy, of course, but probably not far from today's prices for OPEC oil, and in time it should establish a ceiling above which oil imports would not go. The demonstration of serious intent could have an effect on prices before the new sources were actually producing in quantity.

5. Technology and research

The need for rapid progress in efficient use of energy, protection of the environment, and development of new resources will require a more extensive sharing of technology and more joint research.

If there is solidarity in the distribution of scarcity, there should be solidarity in the distribution of new technology to overcome scarcity. It is comparable to a wartime situation in which allied governments, in developing new weapons and in mobilizing their economies, put science and

technology to work where there are the best chances for achieving results.

Priorities have to be established on the main lines of research and development in new forms of energy and the division of labor for pursuing them. Past experience highlights the difficulties of predicting the rate of the development of nuclear power, but by 1985 it could be producing at least 15 percent of total energy consumption in the O.E.C.D. countries. Thereafter, the world will count on the increasing use of nuclear power, but on many aspects -- providing adequate fuel for nuclear plants, preventing diversion of fissionable materials, ensuring safety -- technology must be developed further and political-economic decisions have to be made. These matters cannot be adequately dealt with on the national level alone.

Looking further ahead to forms of energy to which scientific discovery has not yet brought us (nuclear fusion, solar energy for electricity, hydrogen, and others), governments and research institutions will have to set priorities for the use of their talents and resources in accordance with a general plan, and to review and change those priorities as the march of science and technology goes forward.

Taking account of all these requirements, the United States, Canada, the E.E.C. and Japan should work out an agreement on cooperation in the field of energy research and development.

III. Relations with Other Countries

A. Oil-producing countries

The consuming countries must try, as indicated under the above recommendations on supply and on price, to build a continuing relationship with the oil-producing

countries in which both sides have a stake and which they will not wish to disrupt.

It is not easy to create that relationship, given the atmosphere of the past year. The credibility gap is wide, but obviously the dialogue has to begin. Many of the producing countries' arguments are well taken and deserve a respectful hearing in the search for an accommodation of interests.

The new relationship, in any case, must take account of the legitimate desire of the producing nations to own and control their resources, to build industries to process those resources, to move rapidly ahead on the path of general development, and to make sound investments. It should accord to them a place in international economic councils commensurate with their increased economic status.

The industrial states should be prepared to furnish technology and management skills to help them diversify their economies, improve their agriculture, and prepare for the time when their oil resources will decline, for example, by joint research in the field of solar energy. Building refineries and petrochemical industries in the oil-producing countries will tend to increase dependence and to increase the cost of petroleum products for the consumers, but these industries are going to be built one way or another and the wise course is to help.

Solidarity of the consuming countries remains essential, as the alternative to a ruinous scramble for competitive advantage. This does not mean a confrontation of two monolithic blocs or a huge conference of consumers versus producers, but neither does it mean that the former

should not use what bargaining power they possess, which in the overall picture of markets, trade, technology and investment is considerable. They should be in a position to use it flexibly, encouraging moderate policies on the part of producers.

Bilateral contacts or approaches to producing countries on a regional basis should not be ruled out as long as they do not have the effect of tying up supplies, bidding up prices to the detriment of others, or reducing the potential bargaining power of all consumers. If the E. E. C. is maintained as a customs union, of which a common energy policy is a necessary complement -- and this is assumed to be in the general Trilateral interest -- it must be expected to negotiate with the oilproducing countries on trade and investment, though not on prices. Such a regional approach may be beneficial and is clearly preferable to bilateralism on a national basis. Whether the producing states would engage in negotiations with the E. E. C. singly or as a group would be for them to decide; the former method seems more likely.

American, European and Japanese firms will be competing in exports to the oil-producing countries, but here again the general interests of the Trilateral countries as a whole should set the framework. The more bilateral deals are expanded, the more those who make them are subject to political pressure. Unrestricted and uncoordinated bilateral projects also tend to work in the direction of wild and uneconomic investment in the oil-producing region as a whole, which

is in no party's interest. International consortia may be useful for many development projects, especially for large and politically conspicuous ones. At the least, there should be an accepted practice of exchanging information and consulting in the O.E.C.D.

Similarly on political matters, a generally agreed overall approach to such questions as settlement of the Arab-Israeli conflict or arms sales to Middle East states would increase the chances of harmonizing oil policy with political and security objectives. Our several governments would, of course, maintain their own respective interests and differing degrees of intimacy with the various Middle East states, but they must avoid the acrimony and cross purposes which characterized their mutual relations in the autumn of 1973. North America, Western Europe and Japan have common interests in the availability of Arab oil, in the survival of Israel, in Arab-Israeli peace settlements, a stable balance, and avoidance of a great-power conflict in the region. All have a political-economic role to play in that area in the years ahead.

Although the United States as a superpower sees these problems with a broad strategic view, and Europe and Japan see them primarily from the standpoint of their vital interest in oil, harmony on broad policy is necessary not only in light of their own mutual relations, but also in bringing the Middle East states as well to see their policies on oil in the broader context of international security and cooperation. Therefore, there should be close and frequent consultation among the Trilateral countries on their broad policies in the Middle East.

B. The Soviet Union and China

It is logical to explore possibilities of obtaining increased supplies of energy from the U.S.S.R. or China, but these possibilities do not offer the prospect of meeting any substantial part of the problem.

Proposals presently under discussion by U.S. and Japanese companies with the Soviet Government seem to involve high costs and high risks, and should be weighed against comparable investments elsewhere. Vast Soviet reserves of energy, particularly of natural gas, may indeed prove to be a much needed source in the 1980s for the U.S.S.R. itself and for many other countries as well. Increasing the supplies of Soviet gas to Europe appears to make more sense than costly and complex arrangements for shipment of liquefied natural gas to the United States. It is natural for Japan to diversify its sources of energy by looking both to the U.S.S.R. and to China (which will be potentially a considerable oil ~~importer~~ exporter).

As for the general political aspects, Japan or European countries may be wise not to go into large-scale energy projects in the U.S.S.R. except in association with each other or with the United States. Cooperation in energy development with the Soviet Union or China could help to strengthen the trends drawing those countries more into the world economy, but none of the Trilateral countries should take the political risk of a substantial degree of energy dependence on the Soviet Union or China.

C. Developing countries

Because the rise in oil prices, together with increased prices for other essential products threatens a number of the developing countries with disaster, they should be afforded help both immediately and in the longer term.

Emergency aid must be furnished in the form of grants or soft loans, for there is little prospect that it can be repaid. The stronger industrial countries, especially those which have gained by the high prices of food, fertilizers and other goods needed by the developing countries, should maintain or increase current levels of aid despite their own troubles with oil payments, and the oil-producing countries should also contribute through existing international financial institutions or new arrangements such as have been proposed by Iran. It should be clear that this is not just the "north-south problem" in more acute form, for the oil-producing states have both a heavy responsibility for the plight of the others and ample means to ease it.

In the longer run, the continuance of high-cost energy for all will create for many developing countries a situation of permanent inability to meet their fuel bills. As the developed countries increase their own production of energy, there should be more Middle East oil available on the world market, perhaps at a lower price. One way or another, the prices the poorer developing countries pay for oil and for food will have to come down, or arrangements for concessional aid on a more or less permanent

basis will have to be established. Because this is a common obligation of the industrial and the oil-producing countries, it provides another facet of the cooperation which their own reciprocal interests in oil, trade and development will require them to build. And the urgent human considerations for doing so should be beyond dispute.

IV. Institutions

The Trilateral countries need adequate institutional arrangements to coordinate the many aspects of their joint and several approaches to the energy problem. There will have to be continuing consultation among governments, but regular diplomatic channels will not be adequate. If there is need for a general master plan or strategy setting the broad lines of policy, there is need for an organization where its adaptation to changing conditions and its translation into practice can be worked out.

The O.E.C.D., because of the character of its membership and its general function of setting and overseeing the rules of the game, provides the natural framework. An energy agency associated with the O.E.C.D., primarily a consulting body but with some delegated authority, would be a logical central institution for coordinating the tasks which have to be done, everything from current stockpiling to long-range plans for research. The important thing is not the label or the established procedures but the ability to get the job done. If the O.E.C.D. should be too cumbersome or prove inadequate as an action-oriented body, the possibility of a new energy agency representing Canada, the United States, the E.E.C., and Japan should be studied.

V. Conclusion

The energy crisis has propelled the industrial nations into a situation to which other factors were also bringing them though more slowly: a situation in which they have to set the lines of basic policy together or succumb to chaotic national competition and a destruction of the fundaments of a rational world order. The real challenge of the energy problem is not a struggle with outside adversaries, as in most great crises of the past, but within and among our respective societies. Our governments must provide bold and farsighted leadership in their domestic and foreign policies to face the challenge. Our peoples need a wartime psychology to fight this war against ourselves. They should be prepared to tighten their belts and to share sacrifices among themselves -- because it will be a long, uphill struggle.

October 1974

Guy de Carmoy.

EUROPEAN-AMERICAN RELATIONS

(2)

Emergence of a third party

The reversal of the terms of trade of manufactures as against commodities has entailed a dramatic change in the power relationship between the industrial countries themselves. The price fixing of oil is no more decided by the de facto cartel of the major (Anglo American) companies but by the cartel of the major oil producing countries.

The existence of such a cartel, functionning outside the industrial countries of the West, introduces a thrid party, and a very powerful one indeed, in the previously direct relationship between the United States and her NATO and/or OECD partners.

The United States' dependence upon external sources of energy is limited. In case of emergency and on condition she imposes a strict rationing upon her population she could dispense with imports from the Middle East without risking the disruption of her economy.

Western Europe, with an external dependence of 65% simply could not dispense with those imports.

In this juncture, the United States has taken an initiative to which the countries of Western Europe have not given a wholehearted and uniform response.

The American Initiative

The primary objectives of the United States were to reestablish the peace in the Middle East and to maintain the present balance of forces between the two superpowers in the Mediterranean and in the Persain Gulf. The American fleets and weaponry insured the status quo in these two areas.

If the scales tipped in favor of the Soviet Union, the oil supply of all trilateral countries would be in jeopardy.

The pursuit of the above mentioned objectives seemed to preclude an American military intervention in the Persian Gulf because of the risk of a direct involvement of the Soviet Union in the conflict.

Therefore the strategy of the United States has been to prepare for an emergency in setting up a cartel of the oil consuming countries with a view (a) to pool the research and development efforts in oil exploration and energy substitution and (b) to share the available supplies in the case of an effective recourse by the producers to the oil weapon. The oil sharing would act as a deterrent to the use of the weapon.

Such were the goals of the Energy Coordination Group created at the February 1974 Washington Conference.

The European Response

The Europeans believed that the probability of an American military intervention in the Persian Gulf was not as high as that as the use of the oil weapon by the producing countries.

Therefore, they have been searching a counter assurance by engaging into direct deals with the major exporters of oil. They felt that they must avoid the risk of an economic collapse, be it at the cost of taking side against Israël in the Middle East dispute.

The various EEC member countries have concluded a number of bilateral agreements with the producers so as to secure their supplies and also to compensate in part the increased cost of oil imports by the sale of industrial and military equipement.

The network of bilateral agreements obviously reduced the scope of the prospective negotiations between EEC and the Arab league and the chances for a common energy policy.

Thus the oil crisis appeared to be a factor of disagregation of Western Europe. The refusal of France to join ECG in Whashington was a signification move. The subsequent events pointed in the direction of the weakening of the European regional organization.

I.E.A. vs. E.E.C.

Ever since October 1973, the Brussels Commission has been unable to convince the Council of Ministers to adopt a common energy policy. As long as the balance of payments of the EEC member states will be diversely affected by the rise in the price of oil, no progress can be made in the field of a common monetary policy. The spread and scope of the bilateral deals with the oil producing countries constitute an obstacle to the setting up of the long delayed common commercial policy.

Thus the European Economic Community is deprived of its policy content whilst its decision making process is still paralysed by the unanimity rule.

In between, the Energy Coordination Group, working without the participation of France, has come out with a proposal for an International Energy Agency operating under the patronage of OECD and empowered to take majority decisions.

If this proposal was adopted, the agency would be trilateral in its membership and much stronger than EEC by its voting procedure and because of the American presence. As a policy making and policy operating body it would become the counterpart of NATO in the economic field.

It would require much farsightedness on the part of the United States and much courage on the part of her partners to pursue in EEC or elsewhere the goal of European unity. The chances are that IEA will supersede EEC. This is probably the major political implication of the oil crisis.

NOT FOR PUBLICATION OR QUOTATION

INTERNATIONAL INSTITUTE FOR STRATEGIC STUDIES

SIXTEENTH ANNUAL CONFERENCE

THE MIDDLE EAST AND THE INTERNATIONAL SYSTEM

COMMITTEE STREAM A

Oil and Strategy

THE ENERGY PROBLEM AND ALLIANCE SYSTEMS (5) JAPAN

Professor Makoto Momoi

The energy problem, long anticipated but emerging graphically with the October war, showed the Japanese themselves and the world how vulnerable Japan's economic basis was and will be, and how strikingly Japan lacked politico-economic bargaining power in dealing with the oil crisis. As a corollary, it introduced a subtle, if not fundamental, change in a hitherto militarily-oriented concept of national security based on Japan's alliance with the United States. Indeed, it has become fashionable when discussing national security in terms of economic and military security to place a heavier emphasis on the former, as evidenced in an alleged statement by a policymaker: 'With or without a nuclear deterrent, there is no national security without oil'.

Japan's reaction to the crisis, however, was at first complacent, then pessimistic, and finally fatalistic. When the war broke out, few Japanese realized their country was about to face an oil embargo which she had successfully escaped during the 1967 six-day war by remaining politically neutral. When the embargo was imposed, there were cries of 'Japanese Economy Without Maps'[1], or 'Capitalism Gasps For Breath'.[2] On 22 November, 35 days after the embargo was announced, Japan abandoned her neutralism for a pro-Arab stance, even at the risk of antagonizing the pro-Israeli United States. Civilian oil consumption was curtailed and military exercises halted.

A number of official and private studies have since been undertaken to reassess Japan's position and future course of action. The government has yet to adopt a particular policy; but several proposals and recommendations (most of them for intramural study only) reveal Japan's extremely limited range of options, both in ensuring stable energy supplies and in reassessing the Alliance system.

This paper is a brief attempt, first, to review how Japan reacted to the oil crisis, what she has learned from it and how she now plans to deal with energy problems in general. Secondly, it tries to reassess how the realities of the energy problems affected Japan's concept of the Japan-US alliance and what future course of action she might contemplate against the background of the changing nature of the Alliance itself.

Alliance For Japan

For such an attempt, one needs to know something of the uniqueness of the Japan-US Alliance. First, it is the only alliance the United States has under the treaty of mutual co-operation and security. Second, the treaty has a unique sentence in the second paragraph of Article II: 'They /the parties/ will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between them' (Italics added).

No similar phrase can be found in any of the 'mutual defence' or 'security' treaties the United States has with 41 other nations. The words 'mutual co-operation' and 'economic collaboration' have been regarded by the Japanese as being just as important as other aspects of the security arrangement. Their spokesmen, in every official statement, /have confirmed a desire to 'firmly maintain' the security treaty - a symbol not only of common defence but of economic collaboration.

In the defence field Japan is not obliged to 'act to meet the common danger' except in the cast of an 'armed attack against either Party in the territories under the administration of Japan'. In the economic field she undeniably took advantage of an easy access to the American market. The access was so easy that Japan became dependent on American sources for 49 percent of feed grains, 52 percent of wheat, 17 percent of raw cotton and 13 percent of the timber she imported during Fiscal 1972. In all, the American market accounted for 29.5 percent of Japan's total imports and 28.3 percent of exports in 1973 (against the 1972 figures of 29.8 percent and 34.8 percent respectively).

Such a unilateral defence arrangement, combined with such an economic dependence on the United States inevitably prompted former Secretary of Defence Melvin Laird in his 1973 Final Report to Congress, to call for 'mutuality in both trade and security', after indirectly carpeting Japan in these terms: 'Our allies, particularly those which have developed strong and thriving economies through easy access to American markets, while enjoying the luxury of a nuclear shield financed solely by the American taxpayer, must be brought to the realization that they, too, have responsibilities and burdens to bear for their own and free world security and prosperity'.[3]

Former President Nixon also warned Japan in his 1973 foreign policy report that 'without conscious effort of political will, our economic disputes could ear the fabric of our alliance'.[4] For most Japanese, these warnings were a far from pleasant reminder that the alliance system had already begun to show signs of deterioration, for three main reasons. The first of these was that, when faced with American criticism of 'free-riding', the Japanese were, as a diplomat put it, 'apt to consider the security pact imposes obligations only on Japan' because 'Japanese obligations are visible to everyone in terms of the presence of bases [in Japan]'.[5] The second was that the warnings followed a series of economic-diplomatic 'noises': American criticism of Japanese dumping of television sets (December 1970), American pressure on the 'undervalued yen' (May 1971), American overtures to Peking 'over Japan's head' (July 1971), the forced devaluation of the yen (December 1971) and 2½ year textile disputes that ended in January 1972 with Japanese concessions. The third reason was that Japan began to notice a change in the nature of nuclear deterrence following the May 1972 agreement between the two superpowers on the avoidance of nuclear war and the Nixon-Brezhnev pledge of 22 June, 1973 on the prevention of continental war and on refraining from 'the threat or use of force against. . . the allies . . . and other countries'. By implication the pledge weakened the contractual nature of the nuclear umbrella, if it did not furl the umbrella completely.

Nevertheless, the super-powers' agreement was welcolmed as a political framework within which Japan hoped to continue her economic activities without fear of catastrophic disruption resulting from a super-power global confrontation. She knew, of course, that nuclear <u>détente</u> does not necessarily spell peace in relations either between super-powers and others or among the rest of the world. Nor would it automatically lead to non-nuclear and politico-economic stability. In fact she learned from her own experience with the United States that economic disputes were actually intensified as a super-power <u>détente</u> developed. Nonetheless Japan was least prepared to face the politico-economic instability and the strategic fragility of the <u>détente</u> which the October war so vividly revealed.

The war proved beyond doubt Japan's basic politico-economic vulnerability when she found that political neutrality was seen by the Arabs as an unfriendly posture and that the United States was concerned not so much with 'economic collaboration' as with a global strategic balance. Japan's options were extremely limited: she could either follow the leader (the United States) who, with relatively independent oil resources, reportedly wanted Japan to remain non-committal to the Arabs and tolerate the embargo for a few months without any assurance from the major oil companies of an emergency supply; or else Japan, which then had 59 days oil stockpiled, including that aboard tankers <u>en route</u>, had to defy American pressure and reach a political accommodation with the Arabs, at the risk of further deterioration in the Alliance. She chose the latter - that is to say, a subtle process of de-Americanization.

Post-Mortem and Policy Review

Now that the crisis is over, at least quantitatively, a series of intensive post-mortems has been undertaken against the background of a drastically changed producer-consumer relationship. In addition, Japan must face another set of already existing vulnerabilities, most of them invariables she can do little about.

(a) Japan cannot be completely independent of the United States in political, economic and military terms: hence, her pro-Arab posture can never approach that of France or Britain.

(b) Japan has little to offer the Arabs, who are limited both in products they have to export (except for oil) and, because of demographic conditions, in the market they can offer for Japanese goods (parliamentary resolutions ban Japan from arms sales, and technological-legal limitations keep her from joining the United States, France and Britain in a 'nuclear reactor sales war'.

(c) Japan still relies on the majors for the bulk of her oil imports (or about half of the demand expected towards the end of the 1970s) and for downstream operations, since her national oil companies are limited in size and operational experience.

(d) Japan, a relative newcomer to the Middle East scene, is ill-prepared to deal with a possible crisis, arising for instance between Iran and Iraq, or from a split between a Saudi-Egypt group and an Iraqi-Syrian-Libyan faction. (In a recently concluded deal with Iraq, Japan promised $1,000 million of economic-technical assistance in exchange for 160 million tons of crude over ten years. But the Iraq deal antagonized Iran who gave West Germany a refinery-chemical plant project Japan had negotiated. Some fear this might damage Japan's deal with Iran, which has so far supplied 40 percent of her Middle East oil imports.[6]

(e) Japan's economy will suffer a fatal blow from another prolonged interruption of energy flow, since in 1969 about 60 percent of imported energy (or about 80 percent of the total imported and domestic energy supply) was used by industry.

Japanese Options: Some Proposals

Against this background the Comprehensive Energy Study Committee (CESC), an advisory organ to the Ministry of International Trade and Industry, published its 39-page interim energy report on 25 July, 1974.[7] It stresses three major policy goals: a secure stable supply of energy; gradual reduction of Japan's dependence on overseas energy, in particular oil; and conservation, stockpiling and exploration of new energy resources.

First, the committee recommends that priority be given to stable supply: stability should come first because of its possible critical impact on the socio-economic situation in the event of another oil crisis. Second, it sets a goal of an annual average increase in energy supply of 5.7-7.6 percent until Fiscal 1980, and then, until Fiscal 1985 of 5.7-7.8 percent. Such rates will be far less than the average over the past 10 years of 11.9 percent. This could partially offset higher prices. Third, the CESC calls for an intensive effort to conserve and stockpile energy and explore new energy sources on a crash basis in collaboration with other oil-consuming countries, in particular the United States.

On the other hand the report reveals two interesting features:

(a) It does not mention government-to-government collaboration among consuming nations in ensuring oil supplies, but it does stress that the international oil companies, 'though their role might relatively diminish', may still play a big role in international oil market with their long experience, technological know-how and vast capital reserves. To this extent Japan prefers to live in harmony with the majors, if not necessarily with their mother governments.

(b) In the field of research and development, however, Japan evidently wants to 'positively cooperate with US government agencies which have high technological potentials'[8], and for this purpose signed an agreement on Co-operation in the Field of Energy and Research and Development in Washington on 15 July, 1974. Under this, the two governments will undertake co-operative projects related to energy resources, conversion and transmission, and conservation - such as solar and geothermal energy applications, storage batteries, gasification and liquefaction of coal, energy applications of hydrogen, magnetohydrodynamic conversion, fuel cells, electrical energy transmission by superconduction or microwaves, advanced propulsion systems, energy conservation, utilization of waste materials and waste heat. In most of these projects Japan depends on the United States/and only in some, such as solar energy application ('Project Sunshine'), are the two interdependent. In that sense, the agreement is evidence that the emotionalism which emerged during the crisis has partially disappeared.

Thus Japan has learned from the Middle East crisis a lesson about the unchallengable influence of the majors and has become realistic enough, within a span of six months, to undertake a joint technological effort, with the United States, to reduce dependency on the Middle East to the minimum. Given the frame-work of realism, Japan might try to achieve her major energy goals by a series of national efforts.

Future Plans and Difficulties

A series of 'Nixon shocks' and trade disputes in the early 1970s provoked Japanese suspicion that the United States might fail to recall the unique aspect of the Alliance system with Japan: common defence and economic collaboration. The initial American reaction to Japan's vulnerability during the oil crisis simply deepened the Japanese suspicion that the spirit of economic collaboration had virtually been struck out of the American text of the treaty. After an objective survey of the factors behind her vulnerability, however, Japan found no options other than seeking collaboration with the United States. This is also true of Japan's future plans, as well as her efforts to overcome related difficulties.

Development of continental shelves is promising indeed, and vast oil and natural gas deposits might exist in Japan's continental shelves and their peripheral seabeds. But their development entails vast financial outlay, complicated international legal issues and technological problems. Without direct or indirect American participation, development might take too long and cost too much.

In order to deal with drastic changes in international situations in future, Japan may have to diversify her sources of oil by extensive development of oil deposits in untapped regions overseas (including China, Chinese offshore areas and the Soviet Union) if technically feasible and politically agreeable.

While relying on the international oil companies for about 50 percent of demand, Japan will increasingly engage in bilateral deals: direct deals by private companies and government-to-government transactions with oil-producing countries. Both will eventually require stronger government control and management.

Japan plans to bring her total oil stockpiles up from an expected 68.9 days at the end of August 1974 to the European-American level of 90 days by 1979.[9] The government is also ready to join actively in an international joint stockpiling programme and an emergency burden-sharing system.

As for technological R & D, Japan is interested in every item listed in the recently concluded US-Japan energy R & D agreement. High priorities are solar energy application and nuclear power generation, including uranium enrichment technology. (A centrifuge enrichment plant is scheduled to be set up shortly.)

The government is also to launch a national movement for energy conservation by organizing a Resources-Energy Conservation Headquarters and draft a long range plan to change Japan's industrial structure to a less energy-intensive industry.

The plans sound promising, but face a number of inherent problems. Firstly, extensive, long-range R & D programmes require national consensus on huge financial outlay, for in the postwar years, Japan has relied mainly on importing technological know-how, in particular from the United States. The oil crisis has brought a subtle change in this easy-going attitude, but public opinion is not yet ripe for taxpayers to swallow a huge outlay. Secondly, the cost will multiply when Japan embarks on her planned series of overseas development investment projects in the Middle East, South-East Asia and the Far East. For instance, a single Siberian natural gas project at Yakut may cost up to $3,400 million if undertaken without American participation.

Thirdly, there is resources nationalism: a phenomenon not limited to the Third World but also existing in industrial export markets. For both commerical and financial reasons demand for Japanese goods is declining and import regulations are getting severer. Some people fear the world might sooner or later be divided into a few economic blocs, but if Japan were forced to organize one in Asia, the argument goes, she would be in a disadvantageous position vis-à-vis other advanced nations, because South-East Asia today accounts for less than a quarter of her trade (only 24.2 percent of exports and 20.7 percent of imports). Japan desparately needs industrialized markets, particularly the American market.

Fourthly, Japan theoretically could and should diversify sources of resources supply and potential markets and should include China and the Soviet Union, which are in fact making approaches to Japan. The prospects, however, are not necessarily optimistic, mainly because of Sino-Soviet disputes (which require extremely discreet and, above all, balanced approaches by Japan); politico-economic instabilities inherent in socialist systems; the huge financial outlay involved; and Japan's lack of some specialized technology (e.g. pipeline-laying in frozen soil and offshore, or deep-sea oil exploration). Japan has therefore hoped for Japan-US joint participation, though, the absence of a favourable American reaction, the Soviet Union is 'likely to ask for Japan's participation at least in the Yakut plan . . . without waiting for the US to take part', as a financial leader observed on his return from a Soviet tour.[10] The government has yet to give the green light but Japanese business circles are 'not so seriously concerned about the diplomatic impact of Japan's participation in the natural gas project', since 'pipelines cannot carry tanks or troops'. The last quotation refers to the Tyumen oil development, which requires a second Siberian railway - the construction of which it is feared might provoke China. To avoid diplomatic, military and political complications, Japan still desires American participation in Siberian projects. On the other hand, there is a feeling among Japanese policymakers that they would be less restrained joining Chinese projects alone, if necessary; as one of them put it, 'it is much easier to communicate with the Chinese than with the Russians'. But Japan would be better joining in Chinese projects along with the United States, for financial, political and technological reasons.

The fifth difficulty is Japan's lack of bargaining power, which proved near fatal during the oil crisis. Only a limited range of Japanese goods has achieved a sizeable share of the market in only a few countries, and other sources of supply are readily available. Since Japan will have virtually no bargaining power when she faces another crisis, no counterembargo will be credible, and another quick political accommodation might again become imperative. However, some official circles argue that Japan's only bargaining power might lie in technology, which would be extremely effective in international collaboration, if not for retaliatory use in a crisis. But Japan has yet to understand such political implications of technology fully.

Finally, there is a psychological difficulty: nuclear allergy. The CESC report argues that one way to deal with another crisis is for Japan to accelerate nuclear power generation from the present 0.7 percent of total energy supply to 10.3-11.4 percent in Fiscal 1985. 'Once placed in a reactor,' the report explains, 'nuclear fuel will last longer than a year . . . with some stockpiling it is possible to tide over a short interruption of energy supply.' On the other hand, the report points out the extreme difficulty of siting nuclear power plants, because of a lack of geographical locations themselves and strong resistance from local communities.

All this reveals how badly Japan needs collaboration with the United States. Japan cannot simply afford to let the Alliance deteriorate any farther than it did during the oil crisis. On the other hand, the oil crisis has reinforced the shift in emphasis on the Japanese side from the defence to the economic aspects of the Alliance.

Alliance Reassessed

From the day the treaty was revised under the existing title of 'mutual co-operation', Japan had placed equal weight on common defence and 'economic collaboration', but the emphasis gradually shifted to the latter. When economic and trade disputes increased she tended to make politico-economic accommodations under the spirit of economic collaboration - without which, in her views, there could be no common defence. The United States, on the other hand, seemed to have somewhat ignored the spirit, being too concerned about a global strategic balance under the Nixon administration to pay too much attention to the shift of emphasis in the treaty relationship with Japan. The argument for 'mutuality' of trade and security evidently reflected American emphasis on the latter in the form of criticism of Japan's 'free-riding'.

According to Webster's Dictionary, to collaborate is not just to co-operate but to 'co-operate voluntarily as a nation with another or other nations in international political or economic adjustment'. 'Voluntarily' and 'adjustment', the two key words, were evidently missing during the oil crisis. Japan had nothing to adjust

voluntarily in a military sense (no staging base was used nor any arms supplies asked for), but she desparately wanted an adjustment in the economic/political field, where the United States failed to adjust voluntarily or to collaborate with Japan. She thus had no choice but to reach a political accommodation with the Arabs. It was therefore a pleasant surprise when President Ford, in his first address to Congress, pledged to the Allies in the Atlantic community and Japan 'continuity in the loyal collaboration on our many mutual endeavours'. Now the question is how it can and will be implemented.

The first priority is to modify or reverse the process of de-Americanization that Japan adopted, along with her pro-Arab stance, during the oil crisis. Post-crisis experience has already revealed this stance has a limit. It should and will be maintained, but not at the price of further deterioration in the Alliance with the United States - particularly now that the latter is making successful overtures to the Arabs. The de-Americanization can and should be halted for economic, political and technological reasons; but what about the military aspect?

During the crisis, Japan remained a concerned observer so far as the military aspects were concerned, and learned a crucial strategic lesson, too: that a new strategic weapon, oil, proved far more powerful as a political instrument than any arms, coercing even third parties, including Japan, to give up a position of neutrality.

Thus on 17 October, only 11 days after the war broke out, the concerned observer suddenly found herself involved in the conflict as a major politico-economic target. Interestingly enough, no cry for a military response was heard in Japan: only solutions in economic and political terms were sought. This experience led to a reassessment of the strategic vulnerability of Japan which had been predicted in August 1969 following the six-day war of 1967. Editors of an almanac[11] warned against two basic strategic vulnerabilities: virtual dependence on a single source of oil supply (the Middle East), and the need to transport it by sea over a long distance. The first will remain with Japan for a foreseeable future, despite her efforts at diversification, R&D, conservation and stockpiling. In 1969 the editors were evidently relatively optimistic, because the Arabs refrained from coercing Japan to give up diplomatic neutrality during the 1967 war. Nevertheless they warned of a future crisis, which they predicted could happen in 1973! They were, however, very pessimistic about the problem of sea transportation. This is a many-sided problem, involving distance (about 6,800 nautical miles), narrow straits (e.g. Malacca and the entrance to the Persian Gulf), unstable strategic arenas (the Indian Ocean and the Taiwan Strait), increasing Soviet naval expansion and a declining or over-stretched American naval presence along the sea lanes used by Japanese tankers. The Persian Gulf, for instance, is accessible only through a narrow strait (50 kilometres wide) vulnerable to blockade, mining and other hostile actions.

All this indicates that even today Japan's oil transportation is vulnerable to all sorts of disruption or harassment. In fact, some people deduce that Japan could be politically coerced by a threat of oil embargo, physically punished by sealing off the Persian Gulf only, and economically harassed by disrupting passage through the Malacca Strait (forcing tankers to make a voyage three days longer and increasing freight costs by about 10 per cent. Furthermore, the long distance spells risks of encountering sea guerrillas, other acts of non-territorial harassment and legal restrictions evidenced in the recent Law of the Sea conference.

To all these possibilities, however, Japan can think of no military response. In fact none other than a defence minister publicly ruled out the validity of 'destroyer diplomacy'. 'The use of military means to protect overseas interests is not only anachronistic but useless', he said.[12]

Moreover, military means are of limited effectiveness in countering the sealing of the Persian Gulf or harassment in the vast Indian Ocean. They are completely useless against legal restrictions imposed on the basis of international agreements. All this means that Japan must look for options other than military response. In fact, it seems now that no military measures can guarantee economic security at the very time when this is more important than military security. And if the Alliance system does not help very much, what options are open to Japan, which is second only to the United States as a consuming nation? They are inevitably limited.

Firstly, Japan should refrain from diplomatic action which might undermine the basis of the super-power détente, lest the deterioration of American-Soviet relations should lead to the collapse of the political framework within which Japan can ensure economic and military security. To this end, Japan must be prepared to pay a price: offering economic and development assistance (if necessary, going beyond commercial considerations) to the Soviet Union and accepting a political-economic accommodation with the United States.

Secondly, intensive diplomatic efforts should be made to cultivate friendly relations with resources suppliers and the coastal nations of the Indian and Pacific Oceans, so as to minimize the chance of violation of Japanese overseas assets, and to obtain assistance in any emergency involving ships and other means of transport.

Thirdly, in the military field, Japan may have to build up a capability sufficient to take care of herself in a local, conventional armed conflict not only so as to defend herself but also so as to relieve the United States of her security burdens in the Far East, enabling her to divert her naval-air capabilities to areas where Japan cannot make any military contribution.

Fourthly, in order to meet the overall energy problems, Japan must make all necessary investment in R&D and other projects designed to reduce her dependence on overseas resources. The financial outlay might reach an unprecedented amount which would be acceptable only if the public is convinced of its reasonableness as a security cost and as a means to obtain a powerful bargaining instrument.

Finally, but not the least important, Japan should try to extend international collaboration in the field of economic security to the Atlantic community. During the oil crisis Japan shared with Europe the problem of relations with the United States, the possibility of partnership as oil consumers and a common concern about the Soviet Union. A closer European-Japanese relationship would in the first place be an attractive psychological counterweight to the bilateral relationship with the United States - which is basically an alliance of protector and protected. Secondly, the relationship can be expanded to a functional, and later institutionalized, trilateral link for pooling industrial and technological resources in order to solve energy and other problems.

Already the problems the world faces today -- energy, pollution, population and food, among others -- are so global in scope and so urgent in nature that their solutions require multi-national collaboration.

Footnotes

1. Weekly Economist (Japanese), 11 December 1973.

2. Monthly Economist (Japanese), January 1974.

3. Melvin Laird, Final Report to the Congress of the Secretary of Defense, 8 January 1973, p.24.

4. United States Foreign Policy for the 1970s (USIS, Tokyo: Special Report, 3 May 1973), p.103.

5. Takashi Yasukawa, Ambassador to Washington, in an interview with Sankei Shimbun, 16 June 1973, p.2.

6. Editorial, Nihon Keizai Shimbun, 20 August 1974.

7. Sogo Energy Chosa-kai (Comprehensive Energy Study Committee), Chukan Torimatome (Interim Report), (Comprehensive Subcommittee, 25 July 1974).

8. Reference to the text of the 15 July agreement on Co-operation in the Field of Energy Research and Development.

9. Two obstacles to this are a shortage of locations and the cost: 20 million sq meters of land and about $5,000 million will be needed to stockpile an extra 30 days' reserves.

10. The Asahi Evening News, 14 August 1974: 'Siberian Development--Japan's Sole Participation Hoped'.

11. Anzen-Hosho (National Security), 1969 ed., pp.240-264. Published annually by Asagumo Shimbun (a Japanese Stars&Stripes).

12. Naomi Nishimura, 'My Philosophy of Self-Defense--on the Strategy of Limited Response', speech at the Tokyo Foreign Correspondents' Club, 11 October 1971.

Kaiser: - 1
2
3
4 - EEC involv.

1). Economic security - l'Alleanza non è divenuta occupan..., altri ci sono gravi rischi -
Kaiser molto ... (dell'A.A.) rispetto al "dopo '71".

2) ~~Energy~~ crises has deepened the differences bet. US and Eur. "No oil umbrella" - Gli europei hanno sempre sottostimato il conflitto ... e le ... sulle relaz. E-O.
US is alone in the Med.

3) Petrodollari torneranno in Europa sotto forma di ... americano, che ... un nuovo salto in alto il % di spesa per la difesa salirà in US e ... in Europa. RFT diventa la più rispettata forza ... che appoggia gli USA -

4) EEC involvement in Med. not ... - Abstention from the ME is illusory
3 difficoltà: 1 -
2 - differenze circa la soluzione per la sicurezza dello stato di Israele
3 - decision-making procedure in the Community

~~Il peso~~ la situaz. dell'Alleanza è molto grave
Il peso sulla Germania cresce.

Momoi: Gov. giapponese ha seguito una politica di "total submission". Forse la "oil crises" è stata un po' esagerata in Giappone per ... Anni.
- - - : Aumenti delle spese di difesa in USA ... altro che ...

Kaiser: ... la separazione che parte degli europei fra economy and security issues, is illusory: Schmidt e Giscard l'hanno capito.

Goldman: non c'è una grande tendenza in USA di spendere per gli altri.

Kaiser: There is directorate which is emerging. The 5.

Goldman: We have a domestic factor, which is not understood outside: how to deal with the ME problem and Israel state.

TRILATERAL COMMISSION

INTERNATIONAL IMPLICATIONS OF THE ENERGY CRISIS

(2nd draft, October 12, 1974)

Energy is the economic lifeblood of the industrialized nations. In the period of the next decade, in which the supply of energy will be uncertain and the cost will be high, they will face new and critical challenges dangerous to their economic and social stability and to their political institutions.

It is not a matter of energy economics alone, or of political decisions by individual governments on how to cope with shortage. Energy is central to the whole complex of international economic relations involving the supply and movement of raw materials, the rules and practices of world trade, the maintenance of an international monetary system, and the control of inflation. On the political side, the problems of supply and price have compelled the energy-consuming countries to find new kinds of relationships with the principal oil-exporting countries. Above all, and most important for our purposes here, the crisis brings inevitable stress within each consuming country and in their relations with each other. It has already weakened the fabric of the European Community and added strains to the ties between Europe, the United States, and Japan.

In our previous report, The Imperative for a Trilateral Approach, we pointed out that our countries are faced with a situation not unlike those of wartime, requiring a comparable degree of effort, cooperation, and willingness to share sacrifices among allies. Thus far, however, the best comparison is to the conduct of the Western democracies in the period of the "phony war" of 1939-40. The response of governments and peoples has been weak and inadequate. They have not

shown that they have grasped the magnitude of the problem, much less defined with any clarity what they must do about it. For example, if they must accept some reduction in living standards and a change in lifestyles - which seems unavoidable - then decisions as to how and how much must be taken soon and in an equitable and orderly way, or they will impose themselves later at incalculable economic and political cost.

We are not pessimistic concerning the long-term future. While growth of energy consumption should not and indeed cannot continue at the rate attained in the past two decades, and economic growth is bound to slow down as a consequence, we do not regard an end to economic growth as either desirable or inevitable. But we do foresee a transitional period of extraordinary difficulty and adjustment, until such time as our societies can count on more secure and more abundant energy. The main emphasis of our report, with no intent to slight the importance of energy policy itself, is on the political, social and international consequences of this situation.

We pose some blunt questions. Do governments have the political will to face the truth and to act, and if so, will their peoples give them the power to act? Will they have the strength to avoid nationalistic action for common interests? It will be a test both of democratic institutions and of international solidarity.

I. Dimensions of the Problem

The energy problem may be considered in three different time periods. All three have already begun.

The first period is the present and near future. The consuming countries must cope with the threat to financial and economic health and stability caused principally by the sudden rise in the price of oil. They also face the potential

threat of a crisis of supply if the Middle East peace negotiations do not succeed and major oil-producing countries again resort to the "oil weapon" for political reasons. Even without war those producers, as long as they maintain an effective cartel, can further limit production as a means of maintaining or increasing prices.

The second period covers the next decade, from now until 1985, in which the consuming countries, in addition to meeting the continuing financial problem, must make a serious and necessarily costly effort to free themselves from critical dependence on imported oil. This can only be a gradual process, but it will not take place at all unless goals for the reduction of demand and for the development of alternative sources are set now and the necessary decisions are taken in time.

The third period is the longer term, to the end of this century, in which the need is for the timely development of new sources of energy, not only to replace oil imports but to cope with the decline of the world's reserves of hydrocarbon fuels. Here again, governments will have to take decisions in the near future, especially on research and development, although they should retain flexibility to adjust their goals and programs in the light of scientific research and technological change.

The following, in brief compass, are the most pressing problems to which answers must be found.

1. The impact of high oil prices -- In order to keep their economies going, the consuming countries have paid the high prices set by the Organization of Petroleum Exporting Countries (OPEC) at the end of 1973 and maintained or increased during 1974. Some of them are already in a serious financial plight

because of the drain on their financial reserves and the decline of their capacity to borrow. Without help they face bankruptcy. The entire group of consuming countries, moreover, must deal with the question of "recycling" the oil payment money not balanced by exports to the producers. The sums, which have been conservatively estimated at from $60 to $75 billion for 1974 alone and up to $650 billion (World Bank estimate) for the period to 1980, are or will be too large for the private banking system to handle without backing by central banks or governments. The investment process goes on, as individual oil-producing states put their funds on deposit, make their own decisions on short or long-term investment, or conclude bilateral agreements with consuming states. But the oil money is piling up too quickly, there is insufficient time for adjustment, and the funds do not go back to the consuming states which need it the most.

Appeals to the producing states to relieve the situation by reducing the price of oil, whether based on political sympathy, common interest in a viable world economy, or the dangers of confrontation, have not induced them to do so.

2. Reduction of dependence on imported energy -- The events of the past year have revealed the vulnerability of the industrial economies to decisions on the supply and the price of oil which are beyond their control and which affect their very capacity to function and to provide for the livelihood of their citizens. Having allowed that situation to develop, our nations have an obligation to themselves and to each other to reduce that position of dependence as rapidly as possible. To do so is not to assume that the oil-exporting countries will be hostile to our interests or that cooperation with them will

not be possible and desirable. It is only a matter of elementary prudence that our societies should not be held hostage. Hence the need for prompt action to reduce the demand for imported oil through economy of use and the development of alternative sources of energy.

It should be clear to all the industrialized countries that a concerted, all-out effort to reduce waste of energy and increase the efficiency of its use is absolutely essential to success in meeting the problems both of supply and of price. The first requirement is a psychological change: acceptance of the fact that the era of cheap and abundant energy is over and a positive willingness to adjust to it. The second requirement is action on a number of fronts, as in the choice of priorities in the use of fuels for various purposes, in allocation and distribution, and in the application of technology. Price and taxation will be necessary instruments for such action but not in themselves sufficient.

The other side of reducing undue dependence and increasing reliability of supply lies in developing additional sources of energy, principally in the consuming countries themselves. This effort, in the next decade, must rest primarily on intensified production of known reserves of fossil fuels. But our countries cannot achieve even the minimum goals without pushing development of nuclear energy, in which past progress has been painfully slow, and taking early decisions to perfect the technology for such processes as gasification of coal and extraction of oil from shale and tar sands. These are matters for both national and international action.

3. The political dimension -- The importance of the political aspect is evident from two salient points: first, the inescapable requirement for an unprecedented degree of cooperation among the Trilateral countries if they are to act effectively to meet the energy problem; and second, the fact that the

crisis thus far has increased their political problems and magnified the difficulties of mutual cooperation. It should be sufficient to examine briefly the international aspects of the situation within Western Europe, in European-American relations, and in Japanese-American relations.

a. Intra-European relations -- The oil crisis has added to the predicament of a European Community already suffering from serious trade and monetary imbalances due to diverging economic policies. Not only has inflation increased to a point where it endangers political stability in individual countries, but the differential between rates of inflation has driven the members of the Community further apart. Furthermore, the present emphasis on making decisions by intergovernmental mechanisms rather than through the Community institutions has made it impossible for the Community either to respond quickly to an emergency or to adopt long-term policies which are more than non-committal pledges. The possibility of Britain's withdrawal adds to the near-paralysis of the Community institutions.

Less tangible but nonetheless real are the effects on mutual trust of the lack of solidarity shown by the European countries when the Arab states cut back oil exports and raised prices. The Community institutions were not effective, and individual members did not resist the temptation to make bilateral deals with oil-producing countries at the risk of overbidding and of eroding the common commercial policy. Similarly, as each member is hit by the effects of high oil prices, its natural reaction has been to take national measures to protect its own economy, sometimes to the detriment of others, and to look for

financial help to individual governments rather than through a joint approach. Finally, the absence of a common energy policy for the E.E.C. has made it difficult to face the crisis together. The divisive effects of having to make choices between the Arabs and the Americans, in turn, have hampered the creation of a comprehensive European energy policy. Without such a policy, Europe can hardly play a strong and constructive role together with North America and Japan in dealing with the energy problem either in the near future or over the long term.

b. European-American relations -- When the impact of the Middle East war, the Arab oil embargo and the cutback in production struck the Western world, it revealed an apparent conflict of vital interests between Europe and the United States. During the October war the United States concentrated on the issues of military and political security and underestimated the difficulties of the Europeans, whereas Europe thought of economic security first and underestimated the involvement of the Soviet Union. In the period following the war these differences were smoothed over as the two sides began talks on energy matters and tried to improve the procedures for consultation within their alliance. Nevertheless, the potential conflict of interests remains and could come to the surface if the Middle East again erupts in war or if the financial strain bears too heavily on Europe. It is rooted in the profound difference in vulnerability between Europe and the United States, which recent events have widened. The United States has become relatively stronger, owing to the abundance of its energy resources and a strong economic position which should attract the surplus funds of the oil-producing states. Europe is militarily dependent on America and economically dependent on the oil-producing states of the Middle East. Both types of dependence will endure for some time and have to be kept in balance.

The functioning of the Atlantic Alliance is inescapably affected by these developments. Besides bringing to the fore differences of outlook on the Middle East, they may weaken the defense of Western Europe itself. The cost of oil imports will probably induce the European states to reduce their military expenditures at a time when the U.S. Congress is considering the reduction of American forces stationed in Europe. This double trend will have a destabilizing effect on security in Europe, which in turn will weaken the security of all members of the Alliance, including the United States.

The gap in strength between America and Europe, which energy factors have increased, thus creates problems which cannot be easily solved within the Alliance as it now functions. Both parties have an interest in making it more effective in the consideration of problems and the adoption of consistent policies outside of Europe, particularly in the Middle East. It is important to the Alliance as a whole that the European countries improve their economic position through agreements with oil-producing states, and also that a common approach be found to the political issues involving those states, especially to the question of a settlement between Israel and its Arab neighbors.

c. Japanese-American relations -- Japan's dependence on Middle East oil, even greater than Europe's, dictated a similar attitude toward the October war and led to public statements of policy sympathetic to Arab views on terms of political settlement with Israel. Japan's statements and policies, however, did not create differences with the United States comparable to the controversies and recriminations which marked European-American relations, for Japan was remote both geographically and politically from the Middle East conflict. Nevertheless,

Japan's desperate efforts in the wake of the crisis to reduce its dependence on uncertain sources, and also on American oil companies, and to secure future supplies through separate bilateral agreements with producing countries ran athwart American efforts to bring about a common front of consumers and an approach based on non-discriminatory access.

Such strain as these Japanese activities caused was largely dissipated by Japan's participation in the Washington conference on energy in February 1974 and in the work of the Energy Coordinating Group. But the fundamental differences in the positions of the two nations, one with vast reserves of potential energy and the other with virtually none, carries the danger of conflicting policies in the future, especially if the United States should oppose, or appear to oppose, Japan's efforts to keep on good terms with oil-producing states, to diversify its sources of energy, to draw upon the resources of North America, and to increase the proportion of its energy supplies under its own control. The sensitivity of both nations to their trade relations increases the potential for disharmony and dispute.

II. The Response to the Problem

To date, the response of the Trilateral countries to the energy problem has been halting, piecemeal, often inconsistent, and inadequate. The strongest and most promising positive action has been the agreement of the representatives of twelve countries, working in the Energy Coordinating Group, on an emergency oil-sharing program and on the creation of an International Energy Agency, although these proposals have not yet been accepted by governments.

The following, in brief summary, is the record of action, national and international, in response to the energy crisis.

1. North America

In the United States the Middle East war, the Arab oil embargo, and the threat to the security of future supply prompted emergency measures to cope with immediate shortages, a cut in demand in response to conservation and higher prices, and the launching of the concept of "Project Independence," with the aim of ensuring a stable supply and eliminating dependence on foreign sources by 1980. President Nixon and the Congress failed to agree on a number of aspects of energy policy, however, and no comprehensive long-term plan was adopted. Certain specific governmental measures have been taken, through legislation or executive decision, (a) to encourage economy of use, (b) to promote the expansion of domestic oil and gas production, (c) to authorize and expedite building of the Alaska pipeline, (d) to set terms for increased mining of coal, (e) to accelerate production of nuclear power, and (f) to increase funds for research and development of solar, geothermal and other forms of energy.

These are practical measures which by themselves will not have early or decisive results. The ending of the Arab embargo and the easing of the supply situation in the spring of 1974 lessened the sense of urgency. By the end of summer, consumption of oil was slightly below the level of the same time the year before (reflecting definite progress in conservation) but was rising, and dependence on imports (about 38 percent of total oil consumption) remained unchanged. Domestic oil production has continued to decline, and although the

oil and gas industry has decided to invest large sums in exploration and production, those investments will not show results for several years. The government's plan for Project Independence is due for unveiling late in 1974, and much of it will then require legislation before going into effect.

Canada did not have to respond with drastic measures to the energy crisis, and it would be politically difficult to do so as long as large exports of oil and gas still go the the United States. It had some shortage in its eastern provinces which are dependent on imported oil, even though the country is a net exporter. Completion of the pipeline from the Alberta oil fields to Montreal should give Canada the capability for self-sufficiency if it should choose to exercise it, but rising nationwide demand and declining production in Alberta raise questions for the longer term unless new sources are developed. Possessed of large potential energy resources in the Athabasca tar sands and possibly in Artic oil and gas, Canada has adopted a policy of developing its energy at a rate suited to its own needs and not primarily for export. It has rejected the idea of a "continental" energy program with the United States. However, private companies (largely American) are proceeding with increased exploration for oil and gas, and arrangements to produce energy for Japan have been the subject of official and private negotiations between Canadians and Japanese.

2. Western Europe

Because the E.E.C. has not succeeded in the attempt to establish a common energy policy, the Europeans have responded to the present crisis primarily on a national basis. The response was therefore diverse, and it was limited. Only the Netherlands embarked on a drastic, long-term program to save energy, achieving

substantial results through a combination of government initiative and the response of the population and of private industry. Italy, despite its financial plight, has a poor record on conservation. France, after a year in which reduction of demand in real terms was negligible, has set a financial ceiling for oil imports in 1975 and taken measures to restrict consumption. Britain, which has done little to reduce consumption other than to let higher prices take their toll, is relying heavily on future oil and gas from the North Sea and on increased use of coal. Germany, like Britain, has raised coal production targets modestly. Both France and Germany are committed to a substantial growth in the production of nuclear energy.

The European Commission has recommended a broad and ambitious program of conservation and development of energy over the next decade, with emphasis on nuclear energy and gas. But the program has not been accepted by governments. Meanwhile, the member countries go their respective ways. The financial resources they have devoted to exploration and to technology in order to reduce dependence on imports do not compare, even in relative terms, with the efforts deployed in the United States. Nor have European governments begun to face hard choices such as Japan is already taking for the adaptation and restructuring of industry.

3. Japan

(to be supplied by Mr. Kondo)

4. International Action

No agreed international action was taken in the latter months of 1973 to meet the embargo and production cuts decided by the Arab states or the price rises determined by OPEC. Indeed, the differing reactions by the United States, Japan, and the E.E.C. (and between members of the E.E.C.) illustrated a general

view that each could serve its interests better through separate action. The first serious attempt to establish common approaches was the Washington conference of 13 nations in February 1974. The Energy Coordinating Group, which grew out of that conference, has been working out cooperative programs covering conservation and restraint of demand, development of new sources, emergency sharing, research and development, financial aspects, the possibility of meetings of consuming and producing countries, and the role of the international oil companies.

This work has proceeded at a disappointingly slow pace but finally produced significant draft proposals for an emergency sharing plan and for a new international energy agency with power to take action and a procedure of weighted voting likely to produce decisions. The commendable boldness of these proposals places a challenge squarely before the governments, which hitherto have not shown a corresponding sense of urgency. The real test, moreover, will be on the policies to be adopted rather than the institutions and the procedures through which they may be reached.

On the pressing financial question, international action has been limited to bilateral loans to ease the plight of countries in serious trouble (e.g., a large German loan to Italy), and to the establishment by the International Monetary Fund of an "oil facility" for loans to countries hit hardest by oil prices, mainly the poorest of the less developed countries. As Italy is followed by other consuming countries in reaching the limits of their borrowing capacity, with no drop in what they must pay for oil, the need for timely effective international measures to prevent the worst and to avoid a wave of destructive nationalistic actions and counteractions should be apparent.

III. The Need for New Approaches: A Long-Term Strategy

However one looks at the record of response to the energy crisis, some conclusions are obvious. Where drastic action is called for, it has not been taken. The governments have been timid. The general public has followed a philosophy of business as usual and hope for the best. Meanwhile, the financial crisis has grown, political dangers have increased, and international action is postponed.

In the light of this record we reaffirm the main recommendations of the earlier Report of this Task Force (June 1973): the need for a joint commitment by the Trilateral countries to the efficient use and the rational development of energy, meeting its high cost as may be necessary, with a general strategy and plan covering the next twenty years; and the requirement for early action, national and international, in fulfillment of that commitment.

We present here, in brief form, the main lines which such a strategy should take, again drawing on the prior Report. We stress brevity, not because these problems lend themselves to a simple approach, but because our basic preoccupation in this Report is with the political and international aspects rather than with the details of energy policy. On the other hand, the nature of the strategy and plan must be clear if the consequences for political and social institutions and for international relations are to be properly assessed.

The common plan for energy policy should establish a series of goals respecting levels of energy consumption, efforts for economy of use, rates of development, reduction of dependence on energy imported from outside the Trilateral area, and meeting the high cost of essential energy whether imported

or produced at home. Obviously it is not wise or desirable to provide precise sets of figures to illustrate recommendations for a strategy which looks two decades ahead. But in the belief that some general targets for the next ten years should be established as a spur to necessary national and international action we make the following recommendations.

1. Growth and the level of demand -- How deeply can our countries cut their consumption of energy? In order to keep their economies running well, with a modest growth of GNP well below that of the years before the energy crisis, they will probably need an annual rate of increase in energy consumption over the next decade ranging from 2 to 4 percent. The lower figure should be possible for the United States, which has more waste to cut, and the higher figure for Japan, with Europe somewhere in between (see footnote). These rates may be compared with those existing before 1973, and then expected to continue, of roughly 3.5 percent for the U.S., 5.5 percent for Europe and nearly 12 percent for Japan.

The fiction in those earlier projections makes it somewhat unreal to state the "savings" which can be realized by conservation, but holding demand to a 2 percent annual increase in the United States,for example, would mean that by 1985 consumption would be running 18 percent less than originally projected. Saving in Europe and in Japan, with higher rates of pre-crisis projection, would be correspondingly greater.

FOOTNOTE

	1972 actual	1975	1980	1985
U.S.	2,425	2,573	2,841	3,137
		(projected at 2% annual increase)		
Canada	235	249	275	304
		(projected at 2% annual increase)		
E.E.C.	1,180	1,290	1,495	1,734
		(projected at 3% annual increase		
Japan	345	388	472	574
		(projected at 4% annual increase)		

(Adapted from United Nations Statistical Yearbook 1973, pp. 348-350)

2. Efficiency of use -- To hold demand at the proposed level will require a major successful effort to increase conservation and the efficiency of energy use. High cost should be the main stimulus to industries and consumers to practice conservation and economy, but market forces by themselves will not suffice. Public policy will have an essential role in explication and persuasion, in enacting and enforcing standards, in allocating energy to different uses, in equitable distribution of fuels, in helping to plan and finance economic adjustment and change, in reorganizing systems of transport, and in sponsoring research. Some measures can be taken at once, without heavy investment. In other cases, investment in efficiency of use will be much less than for a corresponding increase in supply, and the return will often be more rapid.

Our societies should be ever alert to the possibility of larger reductions in consumption, bringing the demand for energy closer to or below the level of annual renewal rather than of increase. This will require both new advances in technology and the willingness of people to accept more drastic change in social habits and standards of comfort, but it can be done if it has to be done. Individual countries, of course, all have their special conditions; Japan, for example, has less margin before cutting into the bone of essential industrial production.

3. Development of additional energy -- The effort to increase supply within the next few years must rest primarily on intensified production within the Trilateral area of known reserves of fossil fuels - especially coal, for it may be difficult to bring about any large expansion of oil or natural gas production other than in the North Sea and Alaska. Each of the Trilateral

regions should strive to cover by 1985 15 percent of total energy consumption with nuclear power. Early decisions are also necessary to perfect the technology for gasification of coal and extraction of oil from shale and tar sands, although significant energy supplies from the latter two sources may not appear until the mid-1980s.

The consuming countries should consult on the estimates each should set for the production of coal, oil, natural gas, nuclear power, hydro power, and oil from shale and tar sands, for 1980 and 1985. The resultant figures would indicate not only the goals for each country and region but also the picture for the consuming countries as a whole, including the possibilities for trade in energy resources between them.

For the period after 1985 a similar but much more tentative set of goals should be set, with emphasis now on research and development. While the effort to reduce dependence on uncertain imports of fuels would presumably continue, it is not easy to predict what whould be the shape and magnitude of that problem by that time. Programs for oil shale, tar sands and nuclear power would by then be contributing much more energy. While research on solar energy, atomic fusion, and other possible sources should be given full rein, our conclusion is that the energy base from 1985 to the end of the century will still rest largely on fossil fuels (increasingly on coal and its derivatives) and on nuclear fission reactors.

4. Reduction of dependence on outside energy -- The United States and Canada should aim at reaching and holding, by 1985, a position of dependence on imports from uncertain sources for less than 10 percent of total primary energy use. This would be independence in fact, meaning the capacity to keep

going if imports were cut off. We recognize that neither Western Europe as a whole nor Japan can achieve energy independence for many years. The need is for immediate decisions proving a serious intent to move in that direction, for some noticeable progress within a few years, and for commitment to specific goals and time schedules. The E.E.C. should reduce its dependence from the present 60 percent to 40 percent by 1985. Japan should reduce correspondingly from 86.4 percent to 80 percent dependence in the same period. Further lowering of these percentages for Europe and Japan should be envisaged after 1985, especially through the growth of nuclear energy, but the setting of specific goals can await intervening developments.

We do not regard possible imports of oil and gas from non-OPEC sources as likely to change the basic problem. Prospects for new discoveries in or off-shore Asia, Africa and Latin America are uncertain, and any country so favored would probably soon join OPEC. The Soviet Union has vast reserves of energy, but its own increasing demands will limit its capacity to export. While some Soviet fuels should be available for Europe and for Japan, the grandiose proposals under discussion by U.S. and Japanese companies with the Soviet Government for the development and export of oil and gas seem to involve high costs and high risks, and should be weighed against comparable investments elsewhere. It is natural for Japan to diversify its sources of energy by looking both to the U.S.S.R. and to China. But it is doubtful whether Japan or any of the consuming countries could meet more than a small percentage (say 5 percent) of its total energy demand from those countries, and it would not be wise from a political standpoint to incur any substantial degree of dependence on them.

5. Cooperation in research

The Trilateral countries cannot afford separate and competing efforts in this field. On conservation, on many aspects of the development of nuclear energy, on experimentation with new and still unusable forms of energy, they must put science and technology to work where there are the best chances for achieving results. Taking account of all the requirements of the long-term energy plan, the United States, Canada, the E.E.C. and Japan should work out a general framework for cooperation in energy research and development, within which the necessary specific arrangements can be made.

6. The financial burden

Financial problems will beset the consuming countries at every stage of their long=term strategy, as they will be paying for high-cost energy whether it comes from OPEC sources or from their own. But the most serious stage, as indicated earlier, is the immediate one: now and the next few years when huge sums of money in payment for oil are being transferred to the account of producing countries. We shall not, in this Report, make specific recommendations on such matters as emergency credits, arrangements between governments and private banks, types and directions of investment for oil money, or the role of the international financial institutions.* We with to stress three more general points:

a. The financially stronger countries, frankly recognizing common political interests, should be prepared to help their partners whose economies have been thrown into crisis by the effects of the high price of oil. However, that aid should be conditioned upon the most rigorous measures of self-discipline and self-help on the part of the recipients and accompanied by joint commitments to preserve the international trading and financial system.

---

*A special report on this subject by Richard N. Cooper, North American rapporteur of the Trilateral Monetary Task Force, was presented to the Executive Committee in June 1974.

b. The consuming countries must maintain continuing contact and negotiation with the producing countries to deal with the question of oil price in the context of the many other questions, both economic and political, in which both sides are interested. A confrontation on the isolated issue of oil price should be avoided.

c. The consuming countries must begin at once to put themselves in a position where they are less dependent on imported oil and increasingly able to reduce the drain on their financial reserves and exert bargaining power for lower oil prices. Thus, for the price problem as for the supply problem, the need is for concerted and far-reaching action to conserve energy and to develop alternatives to imported oil.

IV. Relations with Oil-Producing Countries

Of the series of political challenges posed to the Trilateral countries by the energy problem, the foremost is to the relations among themselves. But another challenge demands their immediate attention, that of relations with the oil-exporting countries, especially those in the Middle East. How is the adjustment to be made between vital consumer interests and the exercise by the producers of their new "oil power"?

In narrow terms, the main problem is one of persuasion: how to convince the members of OPEC to keep up the supply of oil, at bearable prices, during the period of continuing dependence. One method is diplomatic argument, which by itself is not likely to prevail against counter-argument based on tangible interest. Another method is economic pressure. No one consuming country,

however, has the capacity to exert decisive pressure on the producers, and while consumer solidarity is useful and even necessary as a means of balancing the solidarity of the members of OPEC, attempts to mobilize collective economic pressure on them are not likely to be effective because the preponderance of bargaining power is on their side. Economic warfare, in the form of attempts to deny food or other supplies, will court political disaster without bringing the desired results.

These and other considerations argue for a broader and more positive approach, seeking common and reciprocal interests going far beyond oil which can be furthered by cooperation in a variety of forms, bilateral and multilateral. The ensuing paragraphs touch on these interests and opportunities. While some of them apply to all members of OPEC, most of them are particularly applicable to the producing countries of the Middle East, for they are at the heart of the problem.

The principal non-economic factors are the following:

1. Common interests in security -- The rivalries of local states and of outside powers have made the Middle East a region of dangerous instability. The United States, Western Europe, and Japan, in different ways, can contribute to the security of the region. Certain of the major oil-producing states regard it as important that the existing balance not be upset and that no outside power acquire predominant power in the area of the Persian (Arabian) Gulf. Some of the governing regimes have uncertain or unfriendly relations with other states of the region, or must deal with unstable internal situations.

Their newly acquired wealth may serve as an invitation to subversion, revolution, or intervention from outside. They have a stake in the avoidance of strife and may see a benefit to their security in the assurance of Western interest and the presence of Western forces in the area, serving not as a threat of intervention in conflicts of local states but as support for their independence and nonalignment.

Similarly, their acquisition of American or European arms for the fulfillment of plans for national defense, besides helping to reduce balance-of-payments deficits from oil sales, opens doors to broad cooperation in military and technological fields. The obvious political and economic advantages of such sales should not obscure the dangers of providing ever more sophisticated weapons, stimulating arms races or encouraging militarism. The danger of the spread of nuclear weapons to the region cannot be overlooked. The supply of arms is a complex matter, to which supplying and receiving countries should address themselves in a framework of common interest in security. We recommend, on the side of the suppliers, the establishment of some mechanism, possibly in the framework of the Atlantic Alliance, so that they may consult, exchange information, establish limits of competition, and coordinate decisions, bearing in mind the desirability of eventual negotiation, including the Soviet Union, for a general agreement on arms deliveries and arms levels.

2. The Arab-Israel conflict -- The Trilateral countries have to recognize that the question of the supply of oil cannot be separated from the existence of the political conflict in the Middle East. The renewal of war between the Arab states and Israel or even a failure to reach an agreed settlement within a fairly short time would almost certainly lead the Arabs to reduce or cut off

oil as they did in 1973-74. The prospect that a new crisis would again drive the consuming nations apart highlights the need for an early settlement and for an agreed American-European-Japanese approach to it.

This does not mean that the diplomatic roles would not be different; the United States will continue to be more directly and deeply involved than Europe or Japan in the process of mediation and negotiation. But the negotiations should not be solely in American hands, with the others shut out, nor should the latter take refuge in statements of policy publicly placating the Arabs which make more difficult the task of reaching a negotiated settlement. All should know the shape of an emerging settlement, especially if they are going to be involved in guaranteeing it. In fact, American, European and Japanese ideas on the general terms of a settlement, based essentially on the principle of non-acquisition of territory by force and the right of all states to secure existence, are not widely different. All have an interest, too, in timely negotiations for all will suffer from the consequences of the indefinite deferral of a settlement. An agreed approach, allowing wide scope for changing tactics and for the parties themselves to come together on the final terms, should increase the chances both of Middle East peace and of continued access to oil.

3. A larger role in world affairs -- The oil-producing countries do not play a role in international consultations and decisions relating to the world economy commensurate with their now greatly increased wealth and power. The industrialized countries should encourage their increasing participation, both in international institutions and in informal association, in dealing with the familiar questions of finance, trade, and development. This will mean giving

them more voting power and top-level appointments, with a corresponding reduction of the role of others. With the growing urgency of problems such as the balance of food and population, the effects of technological change, and protection of the world environment, the consuming and producing countries can cultivate responsible common interest in the exploration of possible responses and the building of new international institutions.

4. Special relationships -- Another influence which may modify the picture of confrontation between consuming and producing countries as blocs at odds with each other over oil is the variety of political interests, cultural ties and other factors which differentiate individual members of one group from each other and strengthen relationships with countries on the other side. Thus, the fact that a European nation or the United States may have a close association with a particular producing country is both natural and generally useful. It should be maintained and not condemned on either side as a retreat to bilateralism or an attempt to break the solidarity of one or the other group. If OPEC or the Arab bloc loses cohesion, it will be because the members are following their own interests as they see them, not because of outside manipulation. The Middle East, in particular, is a region of many conflicting local interests, and oil solidarity has not displaced all of them.

a wishful statement ?

On the economic side, many factors of common interest to producers and consumers can help to persuade the former to maintain cooperation. For the most part it is a matter of linking what they have (oil money) with what the industrialized countries can offer (technology, management skills, many types of goods) to produce what they want (rapid development, a place in the sun,

long-run secruity). The following list of items indicates how wide is the scope for cooperation.

1. National development programs -- The highest priority goes to helping the producing countries carry out their programs for the improvement of agriculture and the growth of basic industries. Besides meeting their wants, rapid development will promote exports of the industrialized countries and cut down the oil money balances.

2. Oil-related industries -- The building of petroleum-related industries such as refining and petrochemicals in the producing countries is natural and inevitable. The consuming countries should provide help, even though the temporary effect will be to create competition for their own industries and to aggravate their situation regarding the cost and supply of oil products.

3. Exploration for oil and gas -- Similar considerations apply to further exploration for oil and gas in the producing countries. The effort required for it might better be used to develop energy at home. But if a basic purpose is to create a many-sided structure of cooperation, this side can hardly be left out. It is obviously related to the willingness of the producing countries to continue to supply oil from existing wells.

4. Development of nuclear and other sources of energy -- The producing countries, even those with the largest reserves, are acutely aware that their oil is not inexhaustible. The industrialized countries can help them to prepare for the day when they will look to other sources. Nuclear projects for desalination and generation of industrial power and joint experiments in solar energy would serve this aim.

5. Investment of oil money in the developed countries -- A wide field for cooperation exists in decisions on the investment of oil producers' surplus funds in the consuming countries. This side of the economic relationship provides for the first time a counterpart to the more familiar one of the flow of investment in the other direction. It creates mutuality, with each side having an interest in an inflow of resources for development and a concern for retaining control of fundamental economic decisions. In addition to profitable investment, the oil-producing states presumably have an interest in helping the consuming states to avoid serious economic dislocation or collapse under the burden of payments for oil, which could disrupt their own economies as well and strain political relations more than they wish.

The investment of producing countries' surplus oil funds in the development of energy in the developed countries is a special case, for it raises the question whether they will wish to contribute to the erosion of the bargaining position they now enjoy. They may find that it is in their interest to do so, since oil will always be a premium fuel and the development of energy elsewhere will tend to make their own reserves last longer. Involvement in this type of undertaking could help create in oil-producing and industrialized countries alike a habit of looking together at the total energy situation in the long term and as a world problem.

6. Negotiations on the supply and price of oil -- Leaders of consuming countries have appealed directly for the lowering of prices, and leaders of producing countries have stated publicly why they do not do so, linking the question to inflation of currencies and the prices of other goods. This is a subject on which governments should talk seriously in private rather than polemically in

public. There are obvious limits on how far trade and prices should or can be handled on a government-to-government basis, but OPEC is not an ordinary phenomenon and the price of oil threatens the industrialized world with possible disaster. We do not believe that the rulers of the two major producing states, Saudi Arabia and Iran, wish to see that happen, but there has to be a basis for discussion which they accept. If talks covering the price of food, fertilizer, and other commodities can lead to greater understanding of difficulties on both sides and open the possibility of a better situation in respect of the supply and the price of oil, then they are well worth undertaking. This is, of course, a world problem, an especially urgent one from the standpoint of those LDCs unable to pay current prices for any of the essentials they have to import. There is and can be no easy way to meet it. But we can begin by recognizing that those who stress the linkage between the price of oil and of other goods have a point.

There should be no hard and fast rules on how to approach the oil-producing countries either on oil matters alone or on the broader possibilities of cooperation. The private international oil companies are no longer in a position where they can make decisions or negotiate effectively with producing states concerning levels of production or the price of oil. (°) OPEC has not wished to negotiate with a bloc of all the consumers. In the situation of the past year, in which supplies were uncertain, consuming countries have naturally turned to whatever methods appeared to promise some assurance that they would continue to get oil. Some of the bilateral agreements they have made contain specifics

(°) Oh finalmente uno parla – non si dice che stanno perdendo il controllo delle fonti alternative; controllano parte del supply (relativi di trasporti), e ci

on oil deliveries and prices over fixed periods; some specify goods and services to be provided in return; others merely set a general framework of cooperation in many fields. Fortunately, this "scramble" for special arrangements did not do as much harm to general consumer interests as some critics feared, and the benefits to those who made them were often illusory.

There is much to be said for diversity of approach. As long as the general interest in equality of treatment is met and bilateral deals neither push up the price of oil nor unduly restrict the available supply, such arrangements need not be discouraged. When made within the bounds of an agreed strategy of consuming states, they may be useful in keeping open doors and raising the total quantity of available oil supplies.

Similarly, the dialogue now begun between the E.E.C. and the Arab League is a promising means of opening up discussion on a wide range of possible cooperation between European and Arab countries. Although there is no authority on the Arab side which could make a general agreement, the Community could open up the possibility of special arrangements with individual Arab countries. The United States, Canada, and Japan have no reason to object to such discussions or the agreements which emerge from them, again with the proviso that they are in accord with an agreed general strategy and do not damage the interests of others.

As a stimulus or as a supplement to general talks between governments of consuming and producing countries, we suggest that the Trilateral Commission should set up an expert group which could discuss unofficially with OPEC representatives a whole gamut of issues such as energy, trade, monetary matters, and relations with LDCs, on which the two groups have both conflicting interests and opportunities for cooperation. Seizing such opportunities could open the way to a large-scale multiplication and flowering of economic and political

relationships involving the Trilateral countries with the oil-producing countries. If the initial period of shock and stress can be surmounted and the process of cooperation can gain momentum, the vexing questions of price, recycling, hot money, and production cuts may be dealt with in the perspective of a growing mutuality of interest.

V. Development of Energy in the Trilateral Region

We have already stressed the need for a common long-term strategy for the development of energy resources in the Trilateral countries themselves. Here we shall look mainly at the international political aspects. They are determined to a large extent by the fact that the resources in question are unevenly distributed. In brief, North America has a strong position in current production and proven reserves of fossil fuels, plus a vast potential for the production of oil from shale and tar sands when the technology for its extraction is further improved; Europe, except for North Sea oil and gas and a declining coal industry, is in a much less favorable position; and Japan has practically no natural fuel resources.

If the United States with its Project Independence and Canada with a national energy policy develop their respective resources only to fill their own needs, the Europeans and Japanese will surely question the usefulness of international solidarity on other aspects of the energy problem, not to speak of other matters. Nuclear energy cannot promise them substantial relief from heavy dependence on OPEC oil for a long time. They have an obvious interest in the development of North American fossil fuel resources for the purpose of sharing in the increased production.

It may not be easy for the United States and Canada to accept the proposition that their energy reserves should be exploited, and exhausted, more rapidly than they would plan in the light of their own long-term requirements. There is need for full and frank discussion, within each country and in international discourse, in order to find an agreed balance and reconciliation of possibly conflicting interests. If the solidarity and cooperation of the Trilateral countries is necessary and desirable for reducing dependence on OPEC, for emergency sharing, for coping with high oil prices, and for moving ahead to develop nuclear power and other forms of energy for the future, then it should be valid as well for the development of known resources, wherever their location within the Trilateral area.

Development of these resources on a large scale will require large new investments, as well as guarantees that the resulting high-cost energy will in fact have an outlet, for instance through long-term purchase contracts. The home countries should welcome the added foreign capital, and participating foreign interests would have to share in the risks and in the guarantees.

Governments of the Trilateral countries should try to agree on a set of general rules covering the priority of development of various resources, the degree of domestic and outside participation in investment, estimated volume of production, and the availability of a portion of the product for the export market. Mutually advantageous bilateral arrangements, of course, should not have to await the conclusion of a formal multilateral agreement.

Under appropriate legislation, private and mixed and public companies might all have a role. There is room for wide variety in practice, allowing scope for private enterprise and market forces to do what they can do more efficiently

than governments. The wider the area of agreement, the better the chances for an overall long-term strategy to work. The sensitivities of Canada or Norway, of Britain or of the United States, are fully understood, and their sovereign governments have the last word, but our countries are not closed national preserves. It is legitimate and desirable, for example, that American companies should participate in the production of North Sea oil, Japanese companies in the mining of American coal, or an EEC consortium in the processing of Canada's tar sands.

This question is of the greatest significance as a test of Trilateral solidarity. Will it be seen as a conflict of national versus foreign interests, or of haves versus have-nots, or as an opportunity for contributions of different kinds to be made by all in the interest of a viable economy for the entire Trilateral region? If our nations do not succeed in finding common ground in dealing with themselves, it is difficult to see how they can stay together in dealing with the oil-producing countries.

VI. Social and Political Change

There can be little doubt that more serious shortages of energy and more drastic adjustment of economic patterns and social lifestyles lie ahead. We have noted that renewal by the Arab states of embargoes and cuts in exports, perhaps more severe than the last time, is a serious possibility. A second and more certain engine of change and disruption is the financial squeeze which has already been felt and will grow tighter. The drain on the money supply caused mainly by high oil prices is forcing one consuming country after another to take measures in self defense. Part of the burden may be shifted elsewhere, at the expense of other countries and of the international economic system, but mainly

it will have to be borne at home. Finally, the long-term energy strategy recommended by this Report as the best course toward a more secure future will make very heavy demands on governments, private industry, and the public, particularly in the area of energy conservation. Economic factors will by themselves induce certain changes. But the situation will call for a considerable degree of voluntary cooperation and of acceptance, voluntary or involuntary, of governmental regulation of personal lives.

We cannot predict precisely what changes and adjustments will be necessary. But there will surely be a slower overall growth of the economy, a restructuring of production, a high rate of investment, and a retreat from some of the more extravagant features of our consumer society. The cult of the automobile and the current methods of constructing, heating and cooling buildings can hardly remain unaffected. In essence, there will be a reallocation of capital, labor, technology, and available supplies of energy through the economics of scarcity. We foresee shifts from energy-intensive industries to others which consume less; from relatively non-essential (the highly developed packaging industry, for example) to more essential production; and from wasteful to energy-efficient methods of transporting people and goods. Such shifts will mean changes in patterns of investment and of employment, a high level of technological unemployment, and perhaps a reduced working week. Serious social strains are bound to appear, especially if the economies of the industrial nations continue to be plagued also by inflation and financial instability.

Not all our governments are strong, and it is a virtue of democracy that it is sensitive to the public mood. It is a real question, therefore, whether the necessary sacrifices will in fact be accepted by powerful elements in the body politic, be they politicians, civil servants, trade unions, business men, or an

undefined mass of ordinary citizens. In such cases, there is instability and turmoil whether a government tries to face the crisis or tries to avoid it. Each nation, of course, will have to make its own decisions on how the necessary elements of social discipline, governmental control, and changes in customary lifestyles can be reconciled with the vital need to preserve civic freedoms and democratic institutions. But none will be acting in isolation. Political chaos or the coming of anti-democratic forces to power in any of the Trilateral countries would be a most serious danger to their common security.

It is not possible to avert such dangers with vague formulas for solidarity and cooperation. On the economic side, the problems of industrial structure, the environment, and the mobility of labor will call for common planning and for a stronger international system than ever. Politically, sensitivity to each other's problems and agreement on sharing burdens and shortages provide the only way to keep the system from breaking down.

Because all our countries will have to get along with less energy, it is indefensible that they should differ widely in the burdens and the discipline they accept, as they now do on the most important matter of all, conservation. Obviously the standards and practices cannot be the same everywhere, but there should be, first, an acceptance of the principle of equity; second, an attempt to define what is equitable and to get agreement on it; and third, some mechanism, in an international energy agency or in the O.E.C.D., which could establish general critera and make judgments on each country's performance.

These social problems, in their consequences as in their causes, are in essence international. Our nations have to attack them together, in the context of the long-term strategy on energy and of common political interests. The steadiness required of governments and the dedication and self-discipline required of the people can hardly be sustained unless the latter are convinced that the enterprise is a vital one and that their efforts are being matched by those of their allies.

All these matters requiring cooperation could be more easily and sensibly handled if the European Community had common energy policies and could act as a unit in partnership with the United States, Canada, and Japan. Until that degree of unity exists, it is all the more important that all the Western European states, including France and Norway, be in a position to act effectively with other Trilateral countries through such organs as the proposed international energy agency and the O.E.C.D.

It would be useful to have, in addition, a non-governmental body of experts who could make a long-range evaluation of the social dynamics of the three regions, monitor the evolving situation, and report periodically to governments and to the Secretary General of O.E.C.D.

VII. Conclusions

Our conclusions have already been stated in the body of the Report. By way of resumé, we wish to emphasize three broad conclusions and a number of specific recommendations.

A. General

1. Energy policy -- The Trilateral countries should have a common long-term energy strategy under which they can act decisively and without delay to assure their political independence and economic health. The successful carrying out of such a strategy will create, in effect, a Trilateral energy community. In the experience of this constructive

enterprise our nations can begin to move the now floundering international economic system to higher ground.

2. Social and political consequences -- The effects of the energy crisis and the requirements of a long-term strategy will lead to major changes in the economic structure of our societies and in the lifestyles of our citizens, and probably to political instability as well. In adapting to and managing those changes, governments and peoples will have to show extraordinary steadiness and a determination to preserve democratic institutions. The problems cross national frontiers. Therefore, the attack on them must be a common one.

3. International aspects -- The energy crisis has weakened the Trilateral countries and driven them apart. They must re-create their unity. Only if they work together on the problems of energy strategy, and on the related problems of finance and trade, will they be able to repair the damage already done and get through the difficult transitional period of the next decade. Only if they have a common approach of their own will they be able to work effectively with other nations. On that basis, but with cooperation rather than confrontation as the watchword, they should strive to create with the oil-producing countries a network of mutual economic and other interests which will help to assure vital supplies of oil.

B. Specific

1. Reduction of dependence on imported energy -- The United States and Canada should aim at being substantially independent, with less than 10 percent of energy demand filled by imports, in 1985 and thereafter.

Western Europe should reduce dependence to 40 percent, and Japan to 80 percent, by 1985.

2. Conservation -- All consuming countries should make major efforts for conservation and efficiency of use, holding the annual growth of energy consumption over the next decade below 2 percent in North America, 3 percent in Europe, and 4 percent in Japan. Their peoples should be prepared for even sharper cuts if necessary and for a real reduction in living standards.

3. Development of new sources -- The common energy strategy should include setting rough national and Trilateral production goals, covering the period to 1985, for coal, oil, natural gas, nuclear power, and other forms of energy. Consequent decisions on investment for increased production, and for research on development of new sources of energy for the longer run, should be taken without delay. The Trilateral countries should plan together for future cooperation in the development of the extensive energy reserves of North America as an important means of meeting the long-run needs of the entire Trilateral area.

4. Relations with oil-producing countries -- The recommended broad approach to those countries should be attuned to their basic interests in security, in rapid development, in a sound long-run energy position, and in a larger role in world affairs. In that context and in line with their own agreed strategy, the consuming countries should be prepared to engage in negotiations with the producing countries on the supply and price of oil. The Trilateral Commission should consider creation of an unofficial expert group which could discuss with representatives of OPEC the entire range of energy, trade, and monetary problems and the opportunities for cooperation.

5. The Arab-Israel conflict -- Because a Middle East settlement is of great importance to all of them, the Trilateral countries should follow a generally coordinated approach, allowing room for diversity in their respective roles and for flexibility in tactics. They should be prepared to use their influence on behalf of steady progress in negotiations between the parties and the achievement without undue delay of a peace settlement based on essential acceptance of the principle of non-acquisition of territory by force and the right of all states to secure existence.

6. Financial crisis -- The consuming countries should attempt to ride out the current crisis of the oil payments drain through recycling arrangements, emergency loans to the more hard pressed, and cooperation among themselves and with producing countries on the investment of surplus oil funds, meanwhile taking action by conservation and development of alternative sources of energy to reduce the future size of the problem.

7. Economic and social impact -- In meeting the impact of the energy problem on their economies and social order, governments should agree on equitable standards for bearing the burdens of scarcity and of adjustment.

8. Machinery -- Governments should establish as soon as possible machinery for cooperative action beginning with arrangements such as the Energy Coordinating Group has proposed. In the absence of a common E.E.C. energy policy, it is necessary that all the Western European countries participate with North America and Japan dealing with the problem in the proposed international energy agency and in the O.E.C.D. A body of unofficial experts with the task of evaluating both current data and the long-range social dynamics of the energy situation, reporting to governments and to the public, would be a useful supplement to official activity.

FIRST DRAFT
(BASIS FOR OCT. 1-2 TASK FORCE MEETING IN PARIS)

TRILATERAL COMMISSION

DRAFT REPORT ON ENERGY

October 1, 1974

(5)

I. Dimensions of the Problem

Energy is the economic lifeblood of the industrialized nations. Through the 1950s and 1960s, plentiful and cheap energy, increasingly based on oil, made possible the growing prosperity of North America, Western Europe, and Japan. There was a general expectation that these conditions would continue on into the future, with the rapidly rising demand for energy filled principally by imported oil at easily bearable cost. Events since 1970, and especially since October 1973, have exposed the falsity of such expectations.

The governments and peoples of the Trilateral countries now know that a vital portion of their energy supply is subject to reduction or interruption at the will of the oil-exporting countries; that the ability of the oil-exporting countries to set ever higher prices for their oil can place heavy and possibly unbearable burdens on the economies of individual oil-consuming countries and on the international monetary and trade system; and that the anticipated expansion of energy demand must be drastically modified.

The energy problem may be considered in three different time periods. All three have already begun.

The first period is the present and near future. Its crisis is the threat to financial and economic health and stability caused principally by the sudden rise in the price of oil since the end of 1973, and has to be dealt with now. This next year or two can also see a crisis of supply, if Middle East peace negotiations do not succeed and major oil-producing countries again resort to the "oil weapon" for political reasons.

The second period covers the next decade, from now until 1985, in which the consuming countries, in addition to meeting the continuing financial problem, must make a serious and necessarily costly effort to free themselves from critical dependence on imported oil. This can only be a gradual process, but it will not be done at all unless goals for the development of alternative sources and for reduction of demand are set now and the necessary decisions are taken in time.

The third period is the longer term, to the end of this century, in which the need is for the timely development of new sources of energy, not only to replace oil imports but to cope with the decline of the world's reserves of hydrocarbon fuels. Here again, governments will have to take decisions in the near future, especially on research and development, although they should retain flexibility to adjust their goals and programs in the light of scientific research and technological change.

Every nation of the Trilateral area will have to steel itself to meet these challenges and to marshal its resources to that end. But it is obvious that not all have the requisite resources, even if they have the political will, and that energy is more than a national problem for

each individual country. It is a critical element in the whole complex of international economic relationships involving the supply and movement of raw materials, the rules and practices of world trade, the maintenance of an international monetary system, and the control of inflation. Just as the shortage of energy can inflict serious damage on national economies, so can nationalistic or uncoordinated action to cope with shortage place intolerable strains on the trade and financial system on which those economies depend.

The energy problem, moreover, has an inevitable impact on international political relations. It has pitted oil-consuming against oil-producing countries in an adversary relationship which reflects not only a clash of economic interests but also, in both its origins and its consequences, questions requiring political solution. It has had a devastating effect on the poorest of the developing countries, which cannot meet the new high prices for energy, and has sharpened their insistence on better treatment from the rest of the world community. It may raise new questions in the relations of the industrial countries with the Communist powers, depending largely on whether the latter seek to exploit the difficulties or help to solve them. Finally, and most important for our purposes here, the crisis brings inevitable strains in the relations among the Trilateral countries themselves, as each confronts challenges to which national action which can only show results at the expense of others is often the natural or most easily available response. It has weakened and disrupted the European Community, deepened differences within the Atlantic Alliance, and added stress to U.S.-Japanese relations.

II. The Response to the Problem

To date, the response of the Trilateral countries has been halting, piecemeal, inconsistent, and inadequate. The following, in brief summary, is the record of action.

1. North America

Before the Middle East war of OCtober 1973 the United States had no unified energy policy although President Nixon stressed the need for one. The war, the Arab/oil embargo, and the threat to the security of future supply prompted emergency measures to meet the immediate shortages, a cut in demand in response to conservation measures and higher prices, and the President's launching of the concept of "Project Independence," with the aim of ensuring a stable supply of energy and eliminating dependence on foreign sources of energy by 1980. Considerations of national security as well as economic concerns lay behind the project.

The ending of the Arab oil embargo and the easing of the supply situation in the spring of 1974, however, lessened the sense of urgency. By the end of summer, consumption of oil was at roughly the same level as at the same time in 1973 (reflecting the prior shortage and definite gains through conservation)but was rising,and the dependence on imports (38 per cent of total oil consumption) remained unchanged.

President Nixon and the Congress did not agree on a number of aspects of energy policy, and no comprehensive long-term plan was adopted. Certain specific governmental measures have been taken, however, through legislation or through executive decision: (a) to encourage economy of use,(b) to promote the expansion of domestic oil and gas production, (c) to authorize and expe-

dite building of the Alaska pipeline, (d) to set the terms for increased mining of coal, (e) to accelerate production of nuclear power, and (f) to increase funds for research and development of solar, geothermal and other forms of energy.

These are in the nature of partial measures which by themselves are not likely to bring any marked changes in the levels of energy consumption or the rate of development of new sources. Domestic oil production has continued to decline. On the side of private initiative, the oil and gas industry has decided to invest large sums for exploration and production. The effects of these investments, which will not show results for several years, cannot be accurately estimated. Meanwhile, the government is preparing a program for Project Independence for unveiling in the late fall of 1974.

Canada, also concerned about national security and economic independence,has set for itself the goal of self-sufficiency in energy by 1980, a goal which should be well within reach without extraordinary effort. This means that oil produced in the west (Alberta) will be increasingly used to meet demand in the eastern provinces currently filled by imports. Canadian oil, gas, and coal are to be developed at a rate suited to Canada's own needs and not primarily for export. On the question of long-term supply, the Canadian government has rejected the idea of a comprehensive "continental energy program" in collaboration with the United States. However, Canadian and other private companies are proceeding with increased oil and gas exploration (and possible pipeline construction) in the Arctic which, if successful, could increase considerably the future amounts of energy available. Canada unquestionably has important potential energy

resources which could help meet consumer demand in other industrial countries but has not found compelling reasons to see them rapidly developed for that purpose.

2. Western Europe (to be supplied)

3. Japan (to be supplied)

4. International action

No agreed international action was taken by a broad front of consuming states in the latter months of 1973 to meet the embargo and production cuts decided by the Arab states or the price rises determined by OPEC. Indeed, the differing reactions by the United States, Japan, and the EEC (and between members of the EEC) illustrated a general view that each could serve its interests better through separate rather than concerted action. The first serious attempt to establish common approaches was the Washington conference of 13 nations in February 1974. They agreed on a number of principles, and 12 of them agreed to develop a cooperative program covering conservation and restraint of demand, development of energy resources, an emergency supply plan, research and development, financial aspects, the possibility of meetings of consuming and producing countries, and the role of the international oil companies.

The Energy Coordinating Group, which is working out these approaches, has agreed on an emergency sharing plan for presentation to governments. In other respects, although comprehensive proposals are in preparation, its work has been disappointingly slow. It has suffered from the absence of France, from the continued inability of the European members to reach a common energy policy among themselves, and above all because none of the governments has shown a sufficient sense of the urgency of the problem.

5. The impact of high oil prices

Consuming countries have found no satisfactory answer to the effects of the high oil prices determined by OPEC at the end of 1973 and maintained or increased during 1974. They have paid the price, in order to keep their economies going. There are two main problems. The first is the serious plight of countries which lack energy resources or financial strength, or both, a situation immediately evident in Italy's case and certain to come to others. The second is the general financial problem stemming from the transfer of massive sums of oil money from the consuming to the producing countries ($60 billion surplus to the latters' import requirements is a conservative estimate for 1974 alone, with comparable sums in the next few years).

The response to the first problem has been the taking of austerity measures by the individual countries directly affected and the extension of credit to them by private banks, the IMF, and by other governments. These are but stop-gap measures, for if the drain of financial resources continues the credits will be exhausted and the crisis will remain in more acute form.

The second problem, that of "recycling" the oil payment money not balanced by exports to the producers back to the consuming countries in the form of investment, has been handled in part through the private international banking system. The sums are or will be too large, however, for the private banks to handle without backing by central banks or governments. The investment process, meanwhile, goes its

own way as individual oil-producing states put their funds on deposit, make their own decisions on short and long-term investment, or conclude bilateral agreements with individual consuming states. But the oil money is piling up too quickly, there is insufficient time for adjustment, and the investment does not go into the consuming countries which need it most.

Appeals to the producing countries to relieve the situation by reducing the price of oil, whether based on political sympathy, common interest in a viable world economy, or the dangers of confrontation, have not induced them to do so.

III. The Need for New Approaches: A Long-Term Strategy

Coping with the financial effects of the high price of OPEC oil is the most urgent task before our countries. Proposals to deal with it are being made in a separate report of the Trilateral Monetary Task Force. We shall not, in this report, make specific recommendations on such matters as emergency credits, arrangements between governments and private banks, types and directions of investment for oil money, or the role of the international financial institutions. We wish to stress three more general points:

1. The financially stronger countries should be prepared to help those whose economies have been thrown into crisis by the effects of the high price of oil. However, that aid should be conditioned upon

the most rigorous measures of self-discipline and self-help on the part of the recipients and accompanied by joint commitments to preserve the international trade and financial system.

2. The consuming countries must maintain continuing contact and negotiation with the producing countries to deal with the question of oil price in the context of the many other questions, both economic and political, in which both sides are interested. A confrontation on the isolated issue of oil price should be avoided.

3. The consuming countries must begin at once to put themselves in a position where they are less dependent on imported oil and increasingly able to reduce the drain on their financial reserves and exert bargaining power for lower oil prices. Thus, for the price problem as for the supply problem, the need is for concerted and far-reaching action to conserve energy and to develop alternatives to imported oil.

We reaffirm the main recommendation of the earlier Report of this Task Force (June 1973): the need for a joint commitment by the Trilateral countries to develop energy and meet its high cost, with a plan covering the next twenty years.

The plan should establish a series of general goals respecting levels of energy consumption, efforts for economy of use, rates of development of old and new sources, and reduction of dependence on energy imported from outside the Trilateral region. Obviously it is not possible to set figures with great precision in a general report

which looks twenty years into the future. But we believe that general targets for the next ten years such as those proposed below should be established as a spur to necessary national and international action.

1. Level of demand

In order to keep their economies running, our countries will probably need to increase consumption of energy by from 2 to 3 percent annually. That is a minimum figure which corresponds to a modest level of growth of GNP, but it may also be a realistic maximum in view of the magnitude of the efforts in investment, technology and enterprise necessary to expand the energy supply. (See table)

2. Efficiency of use

To hold energy demand at the proposed level will require a major successful effort to increase the efficiency of energy use. The high cost of energy should be the main stimulus to industries and consumers to practice conservation and efficiency. But public policy will have an essential role in explication and persuasion, in enacting and enforcing standards, in equitable distribution of fuels, in helping to plan and finance economic adjustment and change, and in sponsoring research.

It should be a minimum goal to cut in half, by conservation and economy, the 5 percent average annual increase which appeared in pre-crisis estimates of energy demand. Much of this saving might be gained in the early years of the ten-year period. Bigger savings, bringing the demand closer to the level of renewal rather than of increase might still be possible, depending on technology, but waste is finite and

economy must take account of the increased need for energy to develop a bigger domestic production of energy. Individual countries of course, all have their special conditions; Japan, for example, could save less than others by conservation of energy before cutting into the bone of essential industrial production.

3. Reduction of dependence on outside energy

The rate at which dependence on imported energy is reduced will, of course, depend on the size of the gap between anticipated demand and available other supplies. The proposed moderate rate of increase in demand and the anticipated major effort in conservation will narrow the gap at one end. The expansion of domestic supplies of various kinds of energy will narrow it at the other. Because such expansion will take time, we recognize that no spectacular reduction in imports is possible in the next few years and that neither Western Europe as a whole nor Japan cannot achieve energy independence for many years. The need is for immediate decisions proving a serious intent to develop other sources, for some noticeable progress within a few years in reducing the level of oil imports, and for commitment to specific goals and time schedules.

The United States and Canada should aim at reducing their dependence on imports by 1985 to less than 10 percent of total energy use - this would be independence in fact, meaning the capacity to keep going in case imports were cut off. The EEC should reduce its dependence on

oil imports from the present 60 percent to 40 percent by 1985. Japan should reduce its present 86 percent dependence to percent in the same period. Further lowering of these percentages for Europe and Japan should be envisaged after 1985, but the setting of specific goals can await intervening developments.

4. Development of additional energy

The development of alternatives to imported oil depends on many factors, notably the size of reserves, availability of capital, lead times for development, progress of technology, environmental concerns, and political will. The effort to reduce dependence on imports by 1985 to the levels indicated above must rest primarily in intensified production of known reserves of fossil fuels. Those sources are the most likely to show good results within the next few years, especially coal, for it may be difficult to bring about any large expansion of oil or natural gas production other than from the North Sea and Alaska. Nuclear energy development must be pushed, but past progress has been painfully slow and major expansion will probably come after 1985 rather than before. With early decisions to perfect the technology for gasification of coal and extraction of oil from shale and tar sands, the beginnings of significant energy supplies from these sources should appear shortly before 1985.

Each consuming country should set production estimates for coal, oil, natural gas, nuclear power, hydro power, and oil from shale and tar sands for 1980 and 1985. The resultant figures would indicate not only the goals for each country and region but also the total picture

for the consuming countries as a whole, including the possibilities for trade in energy resources between them. (See illustrative table)

For the period after 1985 a similar but much more tentative set of goals should be set. While the effort to reduce dependence on uncertain imports of fuels would presumably continue, it is not easy to predict what would be the shape and magnitude of that problem by that time. The longer-range task of preparing for the post-oil age would be looming larger. Programs for oil shale, tar sands and nuclear power would by then be contributing much more energy if the necessary decisions on research and development had been taken well in advance. While research on solar energy, atomic fusion, and other possible sources should be given full rein, our conclusion is that the energy base from 1985 to the end of the century will still rest largely on fossil fuels (increasingly on coal in various forms) and on nuclear reactors.

IV. The Need for New Approaches: The Political Dimension

This report will concentrate on the political implications of the energy problem, for its most damaging effects may be on the world's political relationships, and no plan for economic action can succeed without political decisions and the will to carry them out. Moreover, in posing a series of challenges to which, together with those of inflation and economic recession, the Trilateral countries seem helpless to find adequate response either individually or through existing modes of common action, the energy problem has forced them to search for new ways out.

It is not enough to seek to repair the damage. Our countries must get beyond the point where they were when the energy crisis hit them, for that was revealed as a situation of vulnerability and weakness, political as well as economic. This report, accordingly, will focus on six mainly political aspects: (a) forces within the European Community; (b) European-American relations; (c) Japanese-American relations; (d) relations with the oil-exporting countries, especially those in the Middle East; (e) relations among the Trilateral countries as they proceed with the development of energy resources in their own region; and (f) the changes in society and institutions brought on by the energy crisis and by the measures taken to meet it, including possible political unrest and threats to free institutions.

V. Intra-European Relations (along the lines of the de Carmoy draft)

VI. European-American Relations (along the lines of the de Carmoy draft)

VII. Japanese-American Relations (to be supplied)

VIII. Relations with Oil-Producing Countries

In narrow terms, the main problem for the consuming countries in their relations with the members of OPEC is one of persuasion: how to convince them to keep up the supply of oil, at bearable prices, during the period of continuing dependence. One method is logical argument, which by itself is not likely to prevail against counter-argument based on tangible interest. Another method is economic pressure. No one consuming country, however, has the capacity to exert decisive

pressure on the producers, and while consumer solidarity is useful and even necessary as a means of balancing the solidarity of the members of OPEC, attempts to mobilize collective economic pressure on them are not likely to be effective because the preponderance of bargaining power is on their side.

The approach should be in broad and not in narrow terms. It should seek out common and reciprocal interests going far beyond oil which can be furthered by cooperation in a variety of forms, bilateral and multilateral. The ensuing paragraphs touch on these interests and opportunities. While some of them apply to all of the members of OPEC, most of them are particularly applicable to the producing countries of the Middle East, for they are at the heart of the problem.

The principal non-economic factors are the following:

1. Common interests in security

The rivalries of local states and of outside powers have made the Middle East a region of dangerous instability. The United States, Western Europe, and Japan, in different ways, can contribute to the security of the region. Certain of the major oil-producing states regard it as important that the existing balance not be upset and that no outside power acquire predominant power in the area of the Persian (Arabian) Gulf. They see a benefit to their security in the assurance of Western interest and the presence of Western forces in the area, serving not as a threat of intervention in conflicts of local states but as support for their independence and nonalignment. Similarly, their acquisition of American or European arms for the fulfillment of plans

for national defense, besides helping to reduce balance-of-payments deficits caused by oil sales, opens doors to broad cooperation in military and technological fields. A word of warning is necessary against the dangers of stimulating arms races or encouraging militarism. But if trading arms for oil is no simple cure-all for the problems of both sides, neither is it to be hastily or unilaterally dismissed. It is a complex matter to which supplying and receiving countries should address themselves in a framework of a common interest in security.

2. The Arab-Israel conflict

The Trilateral countries have to recognize that the question of the supply of oil cannot be separated from the existence of the political conflict in the Middle East. The renewal of war between the Arab states and Israel or even a failure to reach an agreed settlement within a fairly short time would almost certainly lead the Arabs to reduce or cut off oil as they did in 1973-74. The prospect that a new crisis would again drive the consuming nations apart highlights the need for an early settlement and for an agreed American-European-Japanese approach to it.

This does not mean that the diplomatic roles would not be different; the United States will continue to be more directly and deeply involved than Europe or Japan in the process of mediation and negotiation. But the negotiations should not be solely in American hands, with the others shut out, nor should the latter take refuge in statements

of policy publicly placating the Arabs which make more difficult the task of reaching a negotiated settlement. All should know the shape of an emerging settlement, especially if they are going to be involved in guaranteeing it. In fact, American, European and Japanese ideas on the general shape of a settlement are not widely different. An agreed approach, allowing wide scope for changing tactics and for the parties themselves to come together on the final terms, should increase the chances of both Middle East peace and of continued access to oil.

3. A larger role in world affairs

The oil-producing countries do not play a role in international consultations and decisions relating to the world economy commensurate with their now greatly increased wealth and power. The industrialized countries should encourage their increasing participation, both in international institutions and in informal association, in dealing with the familiar questions of finance, trade, and development. With the growing urgency of problems such as the balance of food and population, the effects of technological change, and protection of the world environment, the consuming and producing countries can cultivate responsible common interest in the exploration of possible responses and the building of new international institutions.

4. Special relationships

Another influence which may modify the picture of confrontation between consuming and producing countries as blocs at odds with each other over oil is the variety of political interests, cultural ties and other factors which differentiate individual members of one group from

each other and strengthen relationships with countries on the other side. Thus, the fact that a European nation or the United States or Japan has a close association with a particular producing country based on historic or cultural or security reasons is both natural and generally useful. It should be maintained and not condemned on either side as a retreat to bilateralism or an attempt to break the solidarity of one or the other group. If OPEC or the Arab bloc loses cohesion, it will be because the members are following their own interests as they see them, not because of outside manipulation. The Middle East in particular is a region of many conflicting local interests, and oil solidarity has not displaced all other considerations. Some Middle East states, after all, are not fortunate enough to be major producers of oil.

On the economic side, many factors of common interests to producers and consumers can help to persuade the former to maintain cooperation. For the most part it is a matter of linking what they have (oil money) with what the industrialized countries can offer (technology, management skills, many types of goods) to produce what they want (rapid development, a place in the sun, long-run security). The following list of items indicates how wide is the scope for cooperation.

1. National development programs

The highest priority goes to helping the producing countries carry out their programs for the improvement of agriculture and the growth of basic industries. Besides meeting their wants, rapid development will promote exports of the industrialized countries and cut down the oil money balances.

2. Oil-related industries

The building of petroleum-related industries such as refining and petrochemicals in the producing countries is natural and inevitable. The consuming countries should provide help, even though the temporary effect will be to create competition for their own industries and to increase their dependence on imports.

3. Exploration for oil and gas

Similar considerations apply to further exploration for oil and gas in the producing countries. The effort required for it might better be used to develop energy at home. But if a basic purpose is to create a many-sided structure of cooperation, this side can hardly be left out. It is obviously related to the willingness of the producing countries to continue/to supply oil from existing wells.

4. Development of nuclear and other sources of energy

The producing countries, even those with the largest reserves, are acutely aware that their oil is not inexhaustible. The industrialized countries can help them to prepare for the day when they will look to other sources. Nuclear projects for desalination and generation of industrial power and joint experiments in solar energy would serve this aim.

5. Investment of oil money in the developed countries

A wide field for cooperation exists in decisions on the investment of oil producers' surplus funds in the consuming countries. This side of the economic relationship provides for the first time a counterpart to the more familiar one of the flow of investment in the other direction. It creates mutuality, with each side having an interest in an inflow of resources for development and a concern for retaining control of fundamental economic decisions. In addition to profitable

investment, the oil-producing states presumably have an interest in helping the consuming states to avoid serious economic dislocation or collapse under the burden of payments for oil, which could disrupt their own economies as well.

The investment of producing countries' surplus oil funds in the development of energy in the developed countries is a special case, for it raises the question whether they will wish to contribute to the erosion of the bargaining position they now enjoy. They may find that it is in their interest to do so, since oil will always be a premium fuel and the development of energy elsewhere will tend to make their own reserves last longer. Involvement in this type of undertaking could help create in oil-producing and industrialized countries alike a habit of looking together at the total energy situation in the long-term and as a world problem.

6. Negotiations on the supply and price of oil

Since the price of oil is now determined by the decisions of producing states rather than by the market or by private oil companies, it is inevitable that prices will be the subject of discussion and negotiation between governments. Leaders of consuming countries have appealed directly for the lowering of prices, and leaders of producing countries have stated publicly why they do not do so, linking the question to inflation of currencies and the prices of other goods. This is a subject on which governments should talk seriously in private rather than polemically in public. There are obvious limits on how

far trade and prices should or can be handled on a government-to-government basis, but OPEC is not an ordinary phenomenon and the price of oil threatens the industrialized world with possible disaster. If discussions about the price of food, fertilizer, and other commodities can lead to greater understanding of difficulties on both sides and open the possibility of a better situation in respect of the supply and the price of oil, then they are well worth undertaking. This is, of course, a world problem, an especially urgent one from the standpoint of those LDCs unable to pay current prices for any of the essentials they have to import. There is and can be no easy way to meet it. But we can begin by recognizing that those who stress the linkage between the price of oil and that of other goods have a point.

There should be no hard and fast rules on how to approach the oil-producing countries either on oil matters alone or on the broader possibilities of cooperation. The private international oil companies are no longer in a position where they can make decisions or negotiate effectively with producing states concerning the levels of production or the price of oil. In the situation of the past year in which supplies were uncertain, consuming countries have naturally turned to whatever methods appeared to promise some assurance that they would continue to get oil. A number of them made bilateral agreements with producing states. Some of these agreements contain specifics on oil deliveries and prices over fixed periods; some specify goods and services to be provided in return; others merely set a general framework of cooperation in many fields. Fortunately, this "scramble" for special arrangements did not do as much harm to general consumer interests as some critics feared.

There is much to be said for diversity of approach. As long as the general interest in equality of treatment is met and bilateral deals neither push up the price of oil nor unduly restrict the available supply, such arrangements need not be discouraged. When made within the bounds of an agreed strategy of consuming states, they may be useful in keeping open doors and raising the total quantity of available oil supplies.

Similarly, the dialogue now begun between the E.E.C. and the Arab League is a promising means of opening up discussion on a wide range of possible cooperation between European and Arab countries. The United States, Canada, and Japan have no reason to object to such discussions or the agreements which emerge from them, again with the proviso that they are in accord with an agreed general strategy and do not damage the general or particular interests of others.

Seen in the large and with the assumption that political leaders will not deliberately invite chaos, the energy crisis has its positive aspects. If its opportunities are grasped on both sides, it can open the way to a large-scale multiplication and flowering of economic and political relationships involving the Trilateral countries with the oil-producing countries. If the initial period of shock and stress can be surmounted and the process of cooperation can gain momentum, the vexed questions of price, recycling, hot money, and production cuts may be dealt with in the perspective of a growing mutuality of interest.

IX. Development of Energy in the Trilateral Region

We have already stressed the need for a common long-term strategy for the development of energy resources in the Trilateral countries themselves. The nature of this endeavor is determined to a large extent by the fact that the resources in question are unevenly distributed. North America has a strong position in current production and proven reserves of fossil fuels, plus a vast potential for the production of oil from shale and tar sands when the technology for its extraction is further improved. Europe, except for North Sea oil and gas and a declining coal industry, is in a much less favorable position, and Japan has practically no natural fuel resources.

This situation has obvious political implications. If the United States with its Project Independence and Canada with a national energy policy develop their respective resources only to fill their own needs, the Europeans and Japanese will surely question the usefulness of international solidarity on other aspects of the energy problem, not to speak of other matters. Nuclear energy cannot promise them substantial relief from heavy dependence on OPEC oil for a long time. They have an obvious interest in the development of North American fossil fuel resources for the purpose of sharing in the increased production.

It may not be easy for the United States and Canada to accept the proposition that their energy reserves should be exploited, and exhausted, more rapidly than they would plan in the light only of

their own long-term requirements. There is need for full and frank discussion, within each country and in international discourse, in order to find an agreed balance and the reconciliation of natioanl and general interests. The concept of national sovereignty unlimited by a more general interest is as strongly held in such matters in the industrial countries as in those less developed nations throughout the world which are now completing the process of asserting the same concept at the expense of foreign oil companies.

Yet if the solidarity and cooperation of the Trilateral countries is necessary and desirable for reducing dependence on OPEC, for emergency sharing, for coping with high oil prices, for moving ahead to develop nuclear power and other forms of energy for the future, then it should be valid as well for the development of known resources, wherever their location, within the Trilateral area.

Development of these resources on a large scale will require large new investments, as well as guarantees that the resulting high-cost energy will in fact have a market. The home countries should welcome the added foreign capital, and participating foreign interests would have to share in the risks and in the guarantees.

Governments of the Trilateral countries should try to agree on a set of general rules covering the priority of development of various resources, the degree of domestic and outside participation in investment, estimated volume of production, and the availability of a portion

of the product for the export market. Under appropriate legislation, private and mixed and public companies might all have a role. There is room for wide variety in practice, allowing scope for private enterprise and market forces to do what they can do more efficiently than governments. But governments will set the rules, either unilaterally or by international agreement. The wider the area of agreement, the better the chances for an overall long-term strategy to work. The sensitivities of Canada or Norway, of Britain or of the United States, are fully understood, and their sovereign governments have the last word, but our countries are not closed national preserves. It is legitimate and desirable, for example, that American companies should participate in the production of North Sea oil, Japanese companies in the mining of American coal, or an EEC consortium in the processing of Canada's tar sands.

This question is of the greatest significance as a test of Trilateral solidarity. Will it be seen as a conflict of national versus foreign interests, or of haves versus have-nots, or as an opportunity for contributions of different kinds to be made by all in the interest of a viable economy for the entire Trilateral region? If our nations do not succeed in finding common ground in dealing with themselves, it is difficult to see how they can stay together in dealing with the oil-producing countries.

X. Social and Political Change

When the Arab states restricted oil exports in the winter of 1973-74, the peoples of the industrial countries had a taste of the potential effects of energy shortage on their daily lives. It did not last long, and the reappearance of adequate supplies of oil brought a return to "business as usual." There can be little doubt, however, that more serious shortages of energy and more drastic adjustment of economic patterns and social lifestyles lie ahead. Renewal by the Arab states of embargoes and cuts in exports, perhaps more severe than the last time, is a serious possibility. The emergency sharing plan now agreed among the 12 countries of the Energy Coordinating Group would help to cushion the effects by a rational and equitable distribution of the shortfall in supplies, but it cannot provide replacement oil beyond what is in the stockpiles. The public would have to accept severe limits on every non-essential use of energy.

A second and more certain engine of change and disruption is the financial hurricane which has already struck and will grow worse. The drain on the money supply caused mainly by high oil prices is forcing one consuming country after another to take measures in self defense, the effect of which is felt largely at home.

Thirdly, the long-term energy strategy recommended by this report as the best course toward a more secure future will make very heavy demands on governments and on the public, particularly in the area of

energy conservation, requiring a considerable degree of voluntary cooperation and of acceptance, voluntary or involuntary, of governmental regulation of personal lives.

The nations most vulnerable to the present financial squeeze such as Japan, Italy and France, have already taken austerity programs of their own to limit oil imports and to economize on consumption. It is natural that the process takes place piecemeal, for governments do not generally take unpopular measures until they have to. One may, however, ask why other consuming nations do not also take action, because the earlier defensive measures are put into effect the better the defense will be and the less severe the crisis. And if a policy of stress on conservation and economy in the use of energy makes sense for the long run, the time to begin is now.

Not all our governments are strong, and it is a virtue of democracy that it is sensitive to the public mood. It is a real question, therefore, whether the sacrifices which the situation calls for will in fact be accepted by powerful elements in the body politic, be they trade unions, civil servants, business men, or an undefined mass of ordinary citizens. In such cases, there is political instability whether a government tries to face the crisis or tries to avoid it. Political chaos or the coming of anti-democratic forces to power in any of the Trilateral countries would be a most serious danger for their common security.

It is not possible to avert such dangers with neat formulas for solidarity and cooperation. Nevertheless, engagement in a common effort, both within a nation and across national borders, can

strengthen all who participate in it. All our countries will have to get along with less energy. Let them equalize burdens by adopting parallel measures of conservation and social adjustment. Let them consult on setting standards, on priorities in the allocation of energy to different uses, on location of industry, patterns of housing, reconstruction of transport systems, and on weeding out the baubles with which the past few decades have bedecked our Western civilization.

Each nation will have to make its own decisions on how the necessary elements of social discipline, governmental control, and changes in customary lifestyles can be reconciled with the vital need to preserve civic freedoms and democratic institutions. The steadiness required of governments and the dedication and self-discipline required of the people will be comparable to the test of war. Those qualities can hardly be sustained unless the people are convinced that the enterprise is a vital one and that their efforts are being matched by those of their allies.

XI. General Conclusions

1. The common enterprise for long-run independence and adequacy of supply in energy is vital to the security and welfare of our societies.

2. A long-term common strategy for conservation and development of energy is essential to the success of that enterprise.

3. The energy problem is critical to the whole complex of world economic relations. If the response of governments to its stress and crises is nationalistic and protectionist, the system of trade and payments will be in grave danger and the economic competition will poison political relations. Conversely, if the energy problem can

be met by purposeful joint action, the results should be reflected in other fields as well.

4. The economies of the Trilateral countries are now exposed to great stress from inadequately controlled economic forces such as inflation, monetary instability, depletion of reserves and the piling up of huge surpluses of oil money. The system lacks a constructive enterprise through which governments can find the political will and public support to move to higher ground. In the experience of that central enterprise, the energy strategy, our nations can begin to lay the foundations of a more durable international order.

5. The espousal and successful execution of a long-range strategy on energy by the Trilateral countries will create, in effect, an energy community. The institutional forms this community takes will be less important than the fact of agreement on essential policy and close collaboration in carrying it out.

6. The Trilateral countries, although necessarily concentrating on their own energy needs and on relations among themselves, should not attempt to build an exclusive community or to assume an attitude of confrontation with other groups of nations. With a new confidence of their own, they should seek to establish a network of collaboration with the oil-producing countries, keep open the doors to the communist states, and enlist the support of both those groups in aiding the poorest nations of the world.

Energy Consumption
(million metric tons of coal equivalent)

	1972 actual estimate	1975 projected at 2% annual increase	1985
United States	2,424.79	2,573.2	3,136.7
Canada	235.01	249.4	304.0
Japan	344.55	366.0	466.1
EEC	1,180.42	1,252.7	1,527.0

Source: United Nations, Statistical Yearbook 1973, pp. 348-350.

	1972	1975	1980	1985
United States				
Domestic Oil				
Domestic Gas				
Coal				
Nuclear				
Hydro				
Shale				
Total Production				
Projected Total Consumption				
Import Gap				
Canada				
Domestic Oil				
Domestic Gas				
Coal				
Nuclear				
Hydro				
Tar Sands				
Total Production				
Projected Total Consumption				
Import Gap				
EEC				
Domestic Oil				
Domestic Gas				
Coal				
Nuclear				
Hydro				
Total Production				
Projected Total Consumption				
Import Gap				
Japan				
Coal				
Nuclear				
Hydro				
Total Production				
Projected Total Consumption				
Import Gap				