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DEPARTMENT OF PHYSICS
BUILDING #81

October 25, 1979

*cc
Lew Robbins*

Professor Igal Talmi
Department of Nuclear Physics
The Weizmann Institute of Science
Rehovot, ISRAEL

Dear Professor Talmi:

I am sorry if I have confused the issue by addressing your attention to the qualitative writeups. I had hoped that they could lighten the burden of coping with the complete exposition. The qualitative writeups, however, serve a pedagogical purpose at the expense of full correctness. For instance, considering coupling of the field to the nucleus only in the initial state sacrifices gauge invariance. The complete calculation maintains gauge invariance.

I wish to stress that none of the results I arrive at would have the analytical form they do if the electromagnetic field were anything other than a plane wave field. In particular, if \vec{A} were a constant vector potential it would not appear at all in the results.

Let me consider the two cases of a constant vector potential and a plane-wave vector potential (in Coulomb gauge) in sequence, as a way of emphasizing the different behavior of the two cases under a gauge transformation. To expedite this procedure, I first wish to point out that the difference between the "reduced" nuclear charge in initial and final nuclear states is equivalent to having a single proton in the final state (see Eq. (5) on p. 45 and Eq. (73) on p. 70).

First consider constant \vec{A} . If a gauge transformation to remove \vec{A} from the equation of motion is applied to the nuclear wave functions, the net result in the transition matrix element is the phase factor $\exp(i\vec{e}\vec{A}\cdot\vec{r})$. The same gauge transformation acting on the electron removes \vec{A} from its equation of motion, and contributes the phase factor $\exp(-i\vec{e}\vec{A}\cdot\vec{r})$ to the transition matrix element. Therefore, \vec{A} vanishes from the problem. All of this is standard and familiar.

Now consider the case where \vec{A} represents a plane wave in Coulomb gauge. The analogue of the constant-potential-removing gauge transformation is just a Göppert-Mayer gauge transformation, which greatly complicates the equations of motion [see my paper, Phys. Rev. A 19, 1140 (1979)], but certainly does not remove the electromagnetic field. In like fashion, the $\exp(-i\vec{e}\vec{A}\cdot\vec{r})$

transformation applied to the electron wave function, when \vec{A} represents a plane wave, serves only to complicate the wave equation and wave function, but certainly does not remove the electromagnetic field from the problem. The mathematical difficulties are so unmanageable in Göppert-Mayer gauge that the only practical way to handle the problem is to carry out the calculation in Coulomb gauge, and then to examine the results for gauge invariance.

The plane-wave vector potential that is introduced in my theory appears in the results as an intensity parameter z , expressible in relativistic notation as $z = -e^2 A_\mu A^\mu R_0^2$ (where $A_\mu A^\mu = (A^0)^2 - \vec{A}^2$). Not only is this expression Lorentz invariant, it is also gauge invariant under all transformations of the type $A^\mu \rightarrow A^\mu + k^\mu \Lambda$, because of the transverse character of the plane wave field. A point I must emphasize is that my theory of induced beta decay is certainly not unique in the way field dependence occurs in it. There is a sizable body of work on the behavior of free charged particles in intense plane wave fields where the results are found to depend on the field through the parameter $z_f = e^2 A^2 \lambda_C^2$, where λ_C is the Compton wavelength. (See the section entitled "Strength of the electromagnetic interaction," pp. 121-125). These theories possess gauge invariance in exactly the same way as does my theory of induced beta decay, and for exactly the same reason. That is, for a plane wave, z_f is invariant under $A^\mu \rightarrow A^\mu + k^\mu \Lambda$. Furthermore, these theories all reduce to familiar and correct results in the limit of low field intensity. Were the value of A^2 somehow removable or changeable through gauge transformation in these theories, they would not give the correct limit.

You are quite right that Eq. (12) of "Basic theory of induced beta decay" is meaningless for constant vector potentials, and I understand why you are dismayed by its appearance. However, my point is that the complete expression to which Eq. (12) is a crude and incomplete approximation leads, in fact, to gauge-invariant results for plane-wave \vec{A} . As I pointed out above, all intense-field theories (including my theory of induced beta decay) are explicitly gauge invariant despite depending on field quantities through an \vec{A}^2 dependence.

Sincerely,

Howard R. Reiss

eas

xc: G. M. Stadler, UPI
Rabbi A. Schindler



מכון ויצמן למדע
THE WEIZMANN INSTITUTE OF SCIENCE
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cc
Rabbi

DEPARTMENT OF NUCLEAR PHYSICS

המחלקה לפיזיקה גרעינית

Direct Tel.: 054-8-2060

October 8, 1979

Professor H.R. Reiss
Physics Department
University of Arizona
Tucson, AZ 85721
U.S.A.

Dear Professor Reiss,

Thank you for your letter of August 24th which I found here upon my return from abroad. I am sorry that my letter was not sufficiently detailed and I have not been able to explain clearly my criticism.

I am well aware that a constant vector potential, corresponding to no electromagnetic field, can be removed by a simple gauge transformation. What I suspect however, is that if you introduce such a constant vector potential into your formalism you will obtain stimulated beta-decay by a non-existing electromagnetic field.

In fact, this seems to me to be the case if I look at your more qualitative writeups. In the one entitled "coupling of the field to the particle in induced beta-decay" you make the statement that it is enough to consider the coupling of the electromagnetic field to the nucleus only in the initial state. In the part entitled "basic theory of induced beta-decay" your derivation of eq. (12) holds also for a constant, and arbitrarily large, vector potential. This is the problem that worries me and the one to which I tried to refer in my letter.

I suspect that lack of gauge invariance invalidates your conclusions. If, however, I have misunderstood your argument, I would be grateful if you could explain the specific point I raised above.

Sincerely yours,

Igal Talmi

cc. Rabbi A. Schindler

August 31, 1979

Mr. Lewis Robins
89 Sturges Highway
Westport, Conn. 06880

Dear Lew:

Enclosed herewith is Dr. Talmi's response. If you want to, you can pursue the matter with University Patents, Inc. and I refer to the suggestion of having Dr. Feinberg of Columbia University review this on a consultative basis. I trust that Professor Reiss will answer.

With warmest regards, I am

Sincerely,

Alexander M. Schindler

Encl.



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המחלקה לפיזיקה גרעינית

13th August, 1979

Rabbi Alexander Schindler
838 Fifth Avenue
New York, NY
U. S. A.

Dear Rabbi Schindler,

Following our telephone conversation I received your kind letter and the papers supplied by Dr. H.R. Reiss.

I looked at the material and I have a few questions which I would like to clarify before giving you my final opinion. I enclose a copy of a letter which I am sending to Dr. Reiss. At this stage it seems to me that the theory is not good enough and I certainly would not recommend investing a large amount of money in conducting experiments which are based on it. In any case, I would recommend that a reputable physicist will be persuaded to read the paper of Dr. Reiss in much more detail than I have been able to do. Perhaps a prominent theorist like Prof. Gary Feinberg from Columbia University could be persuaded to do it. It is better to spend a couple of thousands as consultants' fees than to rush into something with good intentions but no chance to succeed.

I am leaving very soon for a few weeks. Upon my return, if I will have received further explanations from Dr. Reiss, I will gladly let you know what I think about it.

With best regards,

Sincerely yours,

Igal Talmi

13th August, 1979

Professor H.R. Reiss
Physics Department
University of Arizona
Tucson, AZ 85721
U S A

Dear Professor Reiss,

Thank you for your material sent to me by Rabbi Schindler. While I have sympathy for your motives I have great doubts about the validity of your theory.

The most disturbing feature seems to me the fact that the matrix elements of the induced β -decay depend on the magnitude of the vector potential. It seems that your theory is not gauge invariant. In fact, I suspect that your expression (110) could be obtained approximately directly from your eq. (9) (or (18) and (19)) as is done in the ordinary way of approximation used for normal β -decay. This would happen even if the vector potential is a constant vector, i.e. no electromagnetic field at all (in this way there would be no Z_f^2 in the denominator and f_0 would replace your f_1 . So far I have not been able to trace the origin of these differences).

The only way that I can see for an external electromagnetic field to induce β -decay is by mixing into the ground state of the nucleus excited states with lower spins. The spacings between such levels are of order of 1 MeV. I suspect that in order to reach admixtures which will have an appreciable contribution, huge electromagnetic fields will be necessary.

I would appreciate hearing from you about these comments. In any case, I suggest you do a simple approximate calculation of a very simple case which will give the magnitude of the required fields without going through the complicated algebra that you use in your paper.

Sincerely yours,

Igal Talmi

July 27, 1979

Mr. Joseph Vardi
7 Haim Haviv Street
Jerusalem, Israel

Dear Joseph:

Please do not think that I have forgotten the energy matter.

After some thought, I decided to send the material directly to Dr. Talmi for an evaluation. The material is on its way to him now. If he considers it worthy, I will be in touch with you again.

I appreciate your willingness to be of help. With warmest ~~personal~~ regards, I am

Sincerely,

Alexander M. Schindler

*From Robbins
Lore Robbins
89 Sturge's Highway
Westport
06880*



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*No answer
fee*

August 2, 1979

Rabbi Alexander Schindler
838 Fifth Avenue
New York, New York 10019

Dear Rabbi Schindler:

I want to thank you for taking the time last Friday to meet with us and explore the possibilities and potential of the Reiss technology. You certainly have the ability to create action, and action is just what we needed at this point in the project's development.

After you left, we completed our work on a briefing memorandum which I think you will find helpful in understanding Howard's work. I have enclosed a copy for you and for Dr. Talmi.

I hope that I, or UPI, will have the opportunity in the future to return your favor. Please do not hesitate to contact me if and when such a need arises.

Again, thank you and shalom!

Sincerely,

GEORGE M. STADLER
Assistant to the President

GMS/cm

Enclosures

cc: Dr. Howard Reiss
Mr. Lou Robbins
Mr. L. W. Miles



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A Novel Major Energy Source: Controlled Beta Decay

I. Basic Concept

The proposed energy source is nuclear, although it is neither fission nor fusion. It involves the induction of a type of radioactivity called "forbidden beta decay".

Only a few materials found in nature have the requisite nuclear properties, but these materials are relatively commonplace. (They include particular isotopes of calcium, cadmium, etc.) The fuel material is normally quiescent. When exposed to an intense low-frequency electromagnetic field (such as low frequency radiowaves), however, beta decay is induced to occur. This leads to a release of nuclear energy far in excess of the energy involved in the inducing field. The result is a net energy production available for the generation of power. It should be stressed that no gaseous emissions occur, and that the end product of the beta decay is an innocuous material, devoid of further radioactivity.

The same physical process described above may also prove useful to accelerate the decay, or reduce the halflife, of certain nuclear fission waste products (such as strontium -90 and cesium -137) which possess forbidden beta decays.

II. Importance of the Concept

*The total energy resources available from controlled beta decay are larger than those associated with fossil fuels (including coal) and with nuclear fission (including breeding). They are not as large, however, as nuclear fusion resources, if and when these are developed.

*Controlled beta decay fuel resources are widely distributed geographically. In fact, the oceans are a major source of some of the fuels.

*A reactor based on controlled beta decay would be extremely safe to operate. Unless the fuel is subjected to an applied field within a narrow range of the optimum field, the reaction ceases. There is no possibility of an explosion, chain reaction, or any other kind of self-propagating reaction.

*No gaseous emissions of any kind are involved in the proposed controlled beta decay reactor. The emissions from some beta reactor fuels are limited to beta particles, which cannot travel more than millimeters from point of origin. Other beta reactor fuels also emit gamma rays which require shielding. This is in any case a necessary part of reactor design, however, since the gamma rays must be captured in order to employ their energy.

*No noxious wastes are associated with induced beta decay. The end products of the beta decay are conventional materials, with no residual radioactivity. Furthermore, there is no by-product radioactivity, such as occurs in both nuclear fusion and fission.

*There is no weapons potential associated with controlled beta decay fuels or their end products. Both the fuels and wastes are conventional materials with no weapons applications.

III. Elements of the Physics

So-called forbidden (not an absolute term) beta decays are nuclear decay processes which are strongly inhibited in nature because certain angular momentum and parity selection rules are not met. Since each photon (an elementary unit of the electromagnetic field) carries one unit of angular momentum and causes a parity change, a forbidden beta decay can become allowed through application of photons from an external source, leading to a release of nuclear energy in the beta decay which can be put to practical use. Every photon carries the same amount of angular momentum regardless of its energy, and so the use of very low energy photons makes possible a favorable overall energy balance in controlled beta decay. (A somewhat more technical description of some of the special features of the physics of induced beta decay is given below.)

IV. Present Status

A complete theory of induced beta decay has been developed. The theory starts from first principles, is applicable to forbidden beta decay of any order, and carries through to

final results for power density of the released energy in an induced beta decay fuel. Preliminary parameters for beta reactors have been explored. All of this information is contained in a patent application which has been filed with the U. S. Patent Office. In addition, several brief pedagogical writeups have been prepared which address aspects of the physics of induced beta decay which are novel. To some physicists, these novel aspects may even be counter-intuitive.

V. Next Steps And Estimated Costs

The principal requirement is for a laboratory verification of the theory. This may take place in several stages, since the easiest way to apply the inducing electromagnetic field to the target material does not match the idealized conditions reflected in the theory. A field corresponding to the calculations can be provided if simpler experiments prove to be inadequate. More theoretical work is also appropriate. The existing theory considers only the pure induced decay, whereas additional contributions arise from mixed induced and natural decay channels yet to be analyzed. Also, present numerical results have been derived by analytical approximations introduced in the late stages of the calculation. Computer calculations are desirable. Further calculations on intense fields arising from practical physical sources should be explored so that a better understanding of their properties and applications can be established.

In order to accomplish the aforementioned work, a three-phase experimental and theoretical program is envisioned. Phase I experimentation will involve a simple source, based on near field effects and the use of soft permeable materials in a core. Phase II involves a source design with a core, in which only the radiation field component of the source is considered. If necessary, a Phase III source would be developed in which no core is used and only the radiation field component is utilized.

Phase I is expected to take 6-8 weeks at a cost of \$15,000 to \$20,000. Projected costs for a one-year Phase II program are approximately \$200,000, while costs for Phase III work (if necessary) may run as high as \$500,000. (A detailed proposal and budget can be made available upon request.)

VI. Salient Features of the Physics

A very simplified presentation is given here of the basic physical and theoretical concept which is involved in induced beta decay. Then a qualitative discussion is presented

of an interesting feature of the electrodynamics of the induced beta decay process which is quite unfamiliar. Misconceptions can arise if this point is not understood.

To describe the basic process, a four-fermion point interaction is considered, with nonrelativistic treatment of the nucleons. Purely for expository purposes, attention is confined to a Fermi beta decay process involving a single nucleon in the nucleus. The nuclear matrix element which arises in the ordinary theory is (Ψ_f, Ψ_i) , where subscripts f and i refer to final and initial states given by the two-component spinor Ψ . This matrix element gives the selection rules $\Delta J=0$, "no" for change in angular momentum and change in parity. Suppose the final and initial nuclear states differ by one unit of angular momentum and have opposite parity. This represents a first-forbidden beta decay, and the simple matrix element (Ψ_f, Ψ_i) will vanish in this case. There are correction terms to the simple matrix element which do make beta decay possible, although the halflife for this forbidden decay is much longer than for a corresponding allowed decay. One such correction comes from the orbital angular momentum of the electron and neutrino emitted in the decay, which is expressible as

$$(\Psi_f, \Psi_i) \rightarrow (\Psi_f, \Psi_i) - i(\vec{p}_e + \vec{k}_\nu) \cdot (\Psi_f, \vec{r} \Psi_i)$$

where \vec{p}_e and \vec{k}_ν are electron and neutrino momenta, and \vec{r} is the position coordinate of the beta decay nucleon. The nuclear matrix element $(\Psi_f, \vec{r} \Psi_i)$ gives the selection rules $|\Delta J|=0, 1$, "yes" for angular momentum change and parity change. Now consider the effect on a nuclear state of an externally applied plane wave electromagnetic field. For a field of frequency ω such that $\hbar \omega \ll |\Delta E|$, with ΔE a characteristic nuclear level spacing, the effect on the initial state can be shown to be

$$\Psi_i \rightarrow \Psi_i + i(e_i \vec{A} \cdot \vec{r}/c) \Psi_i.$$

Here \vec{A} is the vector potential of the field, and e_i is the effective charge of the beta decay nucleon in coordinates relative to the center of mass of the nucleus. An analogous expression holds for the final state, and since $e_f - e_i = e$, where e is the charge of a single proton, the final effect of the field is to modify the nuclear matrix element to

$$(\Psi_f, \Psi_i) \rightarrow (\Psi_f, \Psi_i) - i(e\vec{A}/c) \cdot (\Psi_f, \vec{r} \Psi_i).$$

The effect of the applied field is just like that of electron and neutrino orbital angular momentum in changing nuclear

selection rules. The magnitude of the modified matrix element can be seen to be significant if $|e\vec{A}R_0/c|$ is of order unity, where R_0 is the nuclear radius. This requires a very intense electromagnetic field, but the required intensity can be achieved on a practical basis with low frequency fields.

An interesting property of the electrodynamics of induced beta decay will now be discussed. The simple analysis above led to the inference that the essential parameter of the field is $|e\vec{A}R_0/c|$. The analysis is based on an interaction Hamiltonian of the field with the nucleon given by $-e\vec{A}\cdot\vec{p}/c$, where \vec{p} is the momentum operator. A comparison of the magnitude of this interaction energy with a characteristic nuclear level spacing ΔE , gives the ratio

$$\frac{|e\vec{A}\cdot\vec{p}/c|}{|\Delta E|} = O\left(\frac{|e\vec{A}R_0|}{c}\right),$$

just as before. In view of the remark that the field should be of low frequency, it is tempting to replace the $-e\vec{A}\cdot\vec{p}/c$ interaction term with the scalar potential $-e\vec{E}\cdot\vec{r}$, as is often done for low frequency fields. \vec{E} is the electric field vector. The ratio of the magnitude of this scalar potential interaction energy to ΔE is

$$\frac{|e\vec{E}\cdot\vec{r}|}{|\Delta E|} = O\left(\frac{\hbar\omega}{|\Delta E|} \frac{|e\vec{A}R_0|}{c}\right),$$

which differs by the factor $\hbar\omega/|\Delta E|$ (hypothesized to be very small) from the previous result. This apparent paradox has an explanation which has only recently appeared in the physics literature (see H.R. Reiss, Phys. Rev. A 19, 1140 (1979)). Although the $-e\vec{A}\cdot\vec{p}/c$ and $-e\vec{E}\cdot\vec{r}$ interaction terms are commonly taken to be equivalent whenever dipole approximation is valid (low frequency fields), this is no longer true when field intensity is large. The vector potential \vec{A} in Coulomb gauge, normally represented by the scalar potential $-\vec{E}\cdot\vec{r}$ in electric-field gauge, requires as well vector potential terms in electric-field gauge at high field intensity. These additional vector potential terms become dominant at high intensity, and, in fact, prevent the usual separation of the equations of motion into center-of-mass and relative coordinate equations. This conclusion, demonstrated in the above-cited article for atomic problems, becomes even more emphatic in the nuclear problem. The origin of the $\hbar\omega/|\Delta E|$ factor in the $-e\vec{E}\cdot\vec{r}$ case as compared to the $-e\vec{A}\cdot\vec{p}/c$ interaction term is simply from the fact that the $-e\vec{E}\cdot\vec{r}$ term represents only a small part of the total field-nucleus interaction energy in the intense field case. These conclusions bear

directly on a different physical problem. Although an electromagnetic plane wave cannot be represented by the scalar potential $-\mathbf{E} \cdot \mathbf{r}$ in the intense-field case, a quasistatic electric field can properly be represented in that fashion. A corollary to the above conclusion is that a quasistatic field is less effective than a plane wave field in inducing beta decay by the factor $\hbar\omega/|\Delta E|$ for fields of like frequency and electric field magnitude. Of course, in the case of resonance (*i.e.*, when $\hbar\omega=|\Delta E|$, the usual case that is the subject of electromagnetic transition calculations), the familiar result obtains that there is no difference in the effects of quasistatic and plane wave fields. However, a major difference arises when only a small portion of the transition energy is supplied by the electromagnetic field, in which case $\hbar\omega \ll |\Delta E|$. This is the case associated with obtaining useful energy from induced beta decay.

VII. Available Supportive Material

1. U. S. Patent Application, Ser. No. 968,406, entitled "Induced Beta Decay."
2. A series of background papers which provide a qualitative treatment of some of the more fundamental aspects of the theory. The titles of these papers are:
 - a) "Introduction to the Theory of Induced Beta Decay."
 - b) "Basic Theory of Induced Beta Decay."
 - c) "Comparison of Induced Beta Emission with Induced Emission From Metastable Atomic State."
 - d) "Differences Between a Low Frequency Plane Wave Field and a Quasistatic Electric Field."
 - e) "Coupling of the Field to the Particle in Induced Beta Decay."
3. A recent paper which appeared in Physical Review entitled: "Field Intensity and Relativistic Considerations in the Choice of Gauge in Electrodynamics" (Phys. Rev. A 19, 1140 (1979)).



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The effect of the applied field is just like that of electron and neutrino orbital angular momentum in changing nuclear

selection rules. The magnitude of the modified matrix element can be seen to be significant if $|e\vec{A}R_0/c|$ is of order unity, where R_0 is the nuclear radius. This requires a very intense electromagnetic field, but the required intensity can be achieved on a practical basis with low frequency fields.

An interesting property of the electrodynamics of induced beta decay will now be discussed. The simple analysis above led to the inference that the essential parameter of the field is $|e\vec{A}R_0/c|$. The analysis is based on an interaction Hamiltonian of the field with the nucleon given by $-e\vec{A}\cdot\vec{p}/c$, where \vec{p} is the momentum operator. A comparison of the magnitude of this interaction energy with a characteristic nuclear level spacing ΔE , gives the ratio

$$\frac{|e\vec{A}\cdot\vec{p}/c|}{|\Delta E|} = O\left(\frac{|e\vec{A}R_0|}{c}\right),$$

just as before. In view of the remark that the field should be of low frequency, it is tempting to replace the $-e\vec{A}\cdot\vec{p}/c$ interaction term with the scalar potential $-e\vec{E}\cdot\vec{r}$, as is often done for low frequency fields. \vec{E} is the electric field vector. The ratio of the magnitude of this scalar potential interaction energy to ΔE is

$$\frac{|e\vec{E}\cdot\vec{r}|}{|\Delta E|} = O\left(\frac{\hbar\omega}{|\Delta E|} \frac{|e\vec{A}R_0|}{c}\right),$$

which differs by the factor $\hbar\omega/|\Delta E|$ (hypothesized to be very small) from the previous result. This apparent paradox has an explanation which has only recently appeared in the physics literature (see H.R. Reiss, Phys. Rev. A 19, 1140 (1979)). Although the $-e\vec{A}\cdot\vec{p}/c$ and $-e\vec{E}\cdot\vec{r}$ interaction terms are commonly taken to be equivalent whenever dipole approximation is valid (low frequency fields), this is no longer true when field intensity is large. The vector potential \vec{A} in Coulomb gauge, normally represented by the scalar potential $-\vec{E}\cdot\vec{r}$ in electric-field gauge, requires as well vector potential terms in electric-field gauge at high field intensity. These additional vector potential terms become dominant at high intensity, and, in fact, prevent the usual separation of the equations of motion into center-of-mass and relative coordinate equations. This conclusion, demonstrated in the above-cited article for atomic problems, becomes even more emphatic in the nuclear problem. The origin of the $\hbar\omega/|\Delta E|$ factor in the $-e\vec{E}\cdot\vec{r}$ case as compared to the $-e\vec{A}\cdot\vec{p}/c$ interaction term is simply from the fact that the $-e\vec{E}\cdot\vec{r}$ term represents only a small part of the total field-nucleus interaction energy in the intense field case. These conclusions bear

directly on a different physical problem. Although an electromagnetic plane wave cannot be represented by the scalar potential $-\mathbf{E} \cdot \mathbf{r}$ in the intense-field case, a quasistatic electric field can properly be represented in that fashion. A corollary to the above conclusion is that a quasistatic field is less effective than a plane wave field in inducing beta decay by the factor $\hbar\omega/|\Delta E|$ for fields of like frequency and electric field magnitude. Of course, in the case of resonance (*i.e.*, when $\hbar\omega=|\Delta E|$, the usual case that is the subject of electromagnetic transition calculations), the familiar result obtains that there is no difference in the effects of quasistatic and plane wave fields. However, a major difference arises when only a small portion of the transition energy is supplied by the electromagnetic field, in which case $\hbar\omega \ll |\Delta E|$. This is the case associated with obtaining useful energy from induced beta decay.

VII. Available Supportive Material

1. U. S. Patent Application, Ser. No. 968,406, entitled "Induced Beta Decay."
2. A series of background papers which provide a qualitative treatment of some of the more fundamental aspects of the theory. The titles of these papers are:
 - a) "Introduction to the Theory of Induced Beta Decay."
 - b) "Basic Theory of Induced Beta Decay."
 - c) "Comparison of Induced Beta Emission with Induced Emission From Metastable Atomic State."
 - d) "Differences Between a Low Frequency Plane Wave Field and a Quasistatic Electric Field."
 - e) "Coupling of the Field to the Particle in Induced Beta Decay."
3. A recent paper which appeared in Physical Review entitled: "Field Intensity and Relativistic Considerations in the Choice of Gauge in Electrodynamics" (Phys. Rev. A 19, 1140 (1979)).

February 14, 1979

Reverend William H. Millerd, S.J., Dir.
Interfaith Coalition on Energy
1413 K Street, N.W. 8th Floor
Washington, DC 20005

Dear Reverend Millerd:

I wish I could join with you at the press conference. No issue cries out more insistently for inter-religious coalition than energy. Feel free to use the attached resolution, adopted overwhelmingly by the UAHC General Assembly, as well as my personal comments on Mexican oil (enclosed).

Sincerely,

Alexander M. Schindler

DP

Interfaith Coalition on Energy

1413 K Street, N.W. 8th Floor
Washington, D.C. 20005

(202) 393-6700

February 9, 1979

Rabbi Alexander Schindler
Union of American Hebrew Congregations
838 Fifth Avenue,
New York, NY 10021

Dear Rabbi Schindler,

At the urging of Rabbi David Saperstein, I am writing you to inform you of the Interfaith Coalition's plans to launch a campaign for energy conservation in the nation's churches and synagogues. An outline of the program is enclosed with this letter.

To launch the program we are scheduling a press conference for the morning of February 22, 1979,. As part of the initial presentation, we hope to release statements of endorsement and exhortation from the representative leaders of the many religious denominations which share the views of the Coalition on energy conservation. Through David Saperstein I know of UAHC's deep concerns about these matters and I would like to invite your participation in this effort.

If the date matches your travel plans, we would be honored to have you join personally with us in the inauguration of the campaign. If not, a statement of endorsement and of encouragement to your congregations will be a most valuable contribution. We could release your statement to the media as part of the conference.

Thank you for giving this matter your attention. I am very hopeful that you can help us in this morally urgent matter in which the religious community is only beginning to make an effective contribution.

I pray for the success of your work for the Union and for the religious communities of the nation.

Sincerely,

William H. Millerd. 11

William H. Millerd, S.J.
Director, Interfaith
Coalition on Energy

(Here are some suggestions that might be included on a Covenant Card)

COVENANT FOR CONSERVATION

I Will:

- /_/_ 1. Turn thermostat down to 65° at bedtime
- /_/_ 2. Turn thermostat down at least to 68° when occupying house in daytime and early evening
- /_/_ 3. Turn thermostat to 62° when at work and no one is in the house
- /_/_ 4. Car pool whenever possible to work, for weekly grocery shopping, to church and synagogue
- /_/_ 5. Turn the hot water heater down to the low-temperature range
- /_/_ 6. Purchase new appliances with conservation in mind
- /_/_ 7. Set the air conditioning thermostat at least as high as 76° in the summertime
- /_/_ 8. Not leave lights burning in unoccupied rooms of my house
- /_/_ 9. Take public transportation to work *or walk or bike*
- /_/_ 10. Considerably limit my pleasure driving.
- /_/_ 11. Buy and use gas-saving car when next purchase of automobile
- /_/_ 12. *Undertake* Subject my house to an "Energy Conservation Audit" *of my house.*

ENERGY CONSERVATION CRUSADE

Sponsored

by

The Interfaith Coalition on Energy

Slogan: "Covenant for Conservation"

Purpose: To encourage local congregations to initiate a program in the local churches and synagogues to covenant for conservation.

Implementation: 1. Pastors and rabbis would speak on Friday nights and Sunday mornings on "The Ethics of Conservation" and ask their respective congregations to covenant with them on behalf of a voluntary crusade for conservation.

2. Members of congregations would be presented with a card listing twelve specific measures they can accept for meaningful participation in the Crusade. To be considered a participant they will be asked by religious leaders to commit themselves to at least seven courses of action.

Function of ICE:

1. Prepare Covenant Card
2. Prepare sermonic materials
3. Distribute back-up materials which will give participants ideas on how they can save on energy
4. Get religious leaders behind campaign
5. Stress cooperation with government in its public call for conservation
6. Emphasize responsible voluntarism as a way of avoiding oppressive bureaucratic mandatory controls
7. Hold a press conference to publicize the religious communities leadership in the conservation movement
8. Serve as a "Clearing House for Conservation" ideas and action
9. Provide ethical, scriptural and theological background for the Crusade
10. Stress the critical need for conservation in the light of world-wide shortages and how conservation can compensate for import losses

February 27, 1979

Enclosed you will find a packet containing statements made at a press conference on February 22, concerning the Covenant for Conservation Campaign. There are statements by William H. Millerd, SJ, Director of the Interfaith Coalition on Energy; Dr. George Outen, General Secretary, Board of Church and Society, United Methodist Church; Reverend Paul Kittlaus, Director, United Church of Christ, Office for Church in Society; Rabbi Alexander Schindler, President, Union of American Hebrew Congregations; and the Lutheran Council in the USA. Also in the packet is a brief description of the Coalition and an outline of the Covenant Campaign.

A copy of the first printing of the Covenant Card is included here too. This was a rush job (done because of the weather) in order to have cards available for the press conference. The card has been revised and is in the process of being reprinted.

We hope you will find this information useful to your faith community.

Sincerely,

A handwritten signature in cursive script, reading "William H. Millerd, SJ". The signature is written in dark ink and is positioned above the typed name.

William H. Millerd, SJ.

ENERGY CONSERVATION CAMPAIGN

Sponsored

by

The Interfaith Coalition on Energy

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10. Stress the critical need for conservation in the light of world-wide shortages and how conservation can compensate for import losses

STATEMENT BY REV. WILLIAM H. MILLERD, S.J., DIRECTOR,
INTERFAITH COALITION ON ENERGY, FEBRUARY 22, 1979

The Interfaith Coalition on Energy issues today a call to all the members of its faith communities, a call to conserve energy. The Coalition begins today a campaign to awaken and deepen the awareness of all people of faith in this nation to the need - the religious and ethical need- to cut back on our consumption of precious fuel resources. We invite all men and women of good will to join with us in a covenant to conserve energy.

The Interfaith Coalition on Energy today asks all those who share our beliefs in the teachings of the Jewish and Christian traditions, to look at our energy resources and use in the light of these traditions.

All energy resources on which the human race depends for heat, food and a multitude of cultural blessings, these resources some renewable and some being rapidly used up, these resources are gifts of our creator God, gifts which the Lord gives to supply the needs of all peoples

The earth and all it contains is the Lord's. In the Lord's Wisdom , the earth's resources are meant to supply the needs of all humanity. With these resources the Lord feeds us all in due season. We humans possess these resources as gifts; we must use them responsibly as stewards of this wise Master. We of this generation hold these gifts in trust for future generations.

Yet if we examine our consciences about our stewardship of these resources. we find that we -in this nation, at least - are using far more than we need and we are wasting them. With barely

6% of the world's population, we account for more than a third of the world's energy use. As much as 50% of this energy is wasted.

Our excessive consumption allows oil producers to demand artificially high prices. These high prices are financially ruinous to the developing nations. They unjustly deprive the less fortunate in this nation of necessary fuel and food. By wasting these resources, we are burdening our children and grand children with higher priced resources or, perhaps, depriving them of sufficient resources for their needs.

Our excessive use of oil makes us overly dependent on the producing nations. We can begin to seek oil rather than justice and peace between peoples. We increase arms exports to overcome the dollar drain abroad. The weakened dollar increases inflation at home to the harm of the elderly and others living on fixed and low incomes.

In short, our over consumption and waste of energy is a cause of social injustice at home and abroad. We are not acting as faithful trustees towards our children and future generations. We are not being reliable stewards of the Creator's gifts to all humanity. We are doing harm - serious harm - to our neighbors.

For these reasons, the Coalition will work to encourage each and every church and synagogue in this nation to give energy conservation a major role in their educational programs and communal celebrations. We will reach out to pastors and rabbis and all religious leaders to help them direct the attention of their communities to the social injustices of excessive energy use.

INTERFAITH COALITION ON ENERGY
February 22, 1979
page three

We invite the faithful of these communities to commit themselves to undertake seven or more specific programs for energy conservation in their personal and family lives. We are distributing Covenant Cards listing possible actions and asking individuals and families to indicate on them their specific covenant commitments.

We of the Interfaith Coalition on Energy invite communities of all faiths to join us in examining our obedience to the commandment to love our neighbors as this is reflected in our use and misuse of energy. We invite them to see energy conserved as a gift of love for our neighbors - of our neighbors at home, of our neighbors abroad, of future generations. We ask all to join in the pursuit of justice and peace by specific, covenant commitments to conserve energy.

Information about the Covenant Cards and other materials such as sermon outlines, motivational and informational materials can be obtained by writing the Interfaith Coalition on Energy, 1413 K Street, NW, 8th Floor, Washington, D.C. 20005. Telephone (202) 783-2852.

INTERFAITH COALITION ON ENERGY

Nature and Purpose:

The Interfaith Coalition on Energy (ICE) is composed of national religious organizations. The purpose is to educate the public and to increase awareness in the churches and synagogues of the religious imperative for involvement in energy education, conservation and the determination of public energy policies.

Theological and Ethical Basis:

Because of our belief in the responsibility God has given humankind to care for the earth and its environment, we of the religious community have a special obligation to provide the necessary moral leadership the energy issue demands.

In keeping with biblical principles and the Judeo-Christian ethic, stewardship concerns require us to preserve the earth's resources for future generations.

We also recognize our obligations to consider how energy decisions affect human needs, both domestic and international.

Goal:

The Coalition seeks 1) the development of an energy conservation ethic in both individuals and institutions, and 2) the adoption and implementation of public policies which emphasize energy conservation and the rapid development of energy sources that are renewable and nonthreatening to public health or the environment, and which minimize dependence on fossil fuels and nuclear fission together with their environmental and social costs.

Emphases:

The specific focus of ICE will be upon the following:

page two

(1) Encouraging energy conservation and efficiency by

- a. assisting religious organizations to conserve energy in their existing and future buildings;
- b. facilitating the participation of religious bodies in community programs such as weatherization for the elderly and low income persons, and parallel job training programs;
- c. calling for increased commitment to lifestyles in which energy use is minimized.

(2) Promoting solar and other renewable energy technologies by:

- a. building informed, active support among religious leaders for appropriate public policies;
- b. assisting religious organizations and institutions to identify opportunities for their use of these technologies;
- c. encouraging missionary and foreign aid agencies to promote these technologies in developing countries as appropriate.

(3) Insisting that the use of fossil fuels and nuclear fission be dependent upon:

- a. adequate protection of miners and other workers;
- b. adequate reduction of the present and potential environmental costs of these energy sources, especially of the adverse impact of mining, combustion/radioactive releases, and waste products;
- c. respect for moral and legal international obligations requiring that the development and use of fission power not allow the diversion of nuclear fuels to use in weapons, and that fuel imports and overconsumption not block the progress of developing countries.

page three

- (4) Emphasizing the social impact of energy decisions especially as they affect the disadvantaged, people on fixed incomes, the unemployed and minority populations.

Program:

- (1) Energy conservation and efficiency.

Since energy conservation and efficiency is a most effective means of minimizing dependence on fossil fuels and nuclear fission, an immediate focus of the coalition will be to facilitate the involvement by the religious community in the formulation and implementation of public policies that promote energy conservation and efficiency. To these ends, the coalition will:

- a. survey its member organizations and others as to current practice, policies, and needs relative to energy conservation;
- b. share this information among the religious communities and encourage them to borrow successful approaches from one another;
- c. facilitate contact by the groups with sources of technical information, and with pertinent secular agencies, programs, and funding sources;
- d. assist the religious communities in assessing public policies for conservation especially as they affect the elderly, people on low income and minorities, and in promoting just policies;
- e. establish liaison with religious agencies, stewardship councils, aid associations, in challenging energy lifestyles and promoting the conservation ethic.

- (2) Promotion of renewable energy technologies and just policies for fossil and nuclear use.

ICE will seek to activate leaders of the religious communities on national

state, and local levels by an education campaign and assist them in entering into meaningful dialogue with public policy makers. For this purpose, the coalition will:

- a. help keep religious leaders informed on the energy issues outlined under emphases - through the distribution of pertinent literature, through articles in the religious press and through the mass media;
- b. gather local religious leaders for workshops and conferences on energy issues especially in regions from which come principal decision makers on energy policy;
- c. assist involvement by the religious community in the formulation and implementation of public policies, in particular, through cooperation with Impact, Network, and other information networks on energy issues;
- d. facilitate contact by the groups with sources of technical information and with pertinent secular agencies, programs, and funding sources;
- e. encourage religious communities to work with secular energy groups where they share similar purposes;
- f. recruit religious organizations that are not active on energy issues to an increased involvement.

STATEMENT OF RABBI ALEXANDER M. SCHINDLER, PRESIDENT, UNION
OF AMERICAN HEBREW CONGREGATIONS, FEBRUARY 22, 1979

The Union of American Hebrew Congregations is most pleased and ready to cosponsor the Covenant for Conservation Campaign. Our sponsorship follows directly from the energy policy resolution adopted overwhelmingly by the UAHC General Assembly.

The UAHC energy policy resolution reads in part:
"The principles of our Jewish tradition stress mankind's responsibility to care for God's earth and to safeguard its resources, thus fulfilling our trust to generations yet unborn. 'We are but stewards of whatever we possess.' We, therefore, concur that the priorities of a national energy policy should be conservation and development of renewable alternative resources as a means of achieving self-sufficiency for our energy needs."

The resolution concludes: "We call upon the Commission on Synagogue Administration and the Commission on Social Action to provide effective and practical guidance to our congregations in the conservation of energy in our own structures. We also call on individual congregants and congregations to do whatever they can to reduce energy consumption and to join with all public-spirited citizens in helping the United States and other countries to respond affirmatively to this profound challenge which will do so much to shape the future of this country and the world."

For these reasons, the Union Of American Hebrew Congregations joins today in this Covenant for Conservation Campaign. We encourage cooperation by all our congregants in this ecumenical effort for energy conservation.

STATEMENT OF REV. PAUL KITTLAUS, DIRECTOR, UNITED CHURCH OF CHRIST,
OFFICE FOR CHURCH IN SOCIETY, WASHINGTON, D.C., February 22, 1979

The Office for Church in Society of the United Church of Christ encourages its member churches as well as the ecumenical community to participate in the Interfaith Coalition on Energy (ICE) Energy Conservation Campaign.

The American energy crisis is caused in large part by individuals who waste energy in homes and transportation. The ICE covenant among congregations of all faiths to take specific conservation measures will be an effective means to reduce individual energy consumption.

It is clear that the religious community should affirm the value of the judicious use of the earth's resources. Simple measures like turning down thermostats and hot water heaters, forming car pools, taking public transportation or walking whenever possible, and undertaking an "Energy Conservation Audit" in the home are logical outgrowths of religious social values.

We likewise affirm that Christian and Jewish religious leaders alike ought to speak to their congregations about "The Ethics of Conservation".

STATEMENT BY DR. GEORGE H. OUTEN, GENERAL SECRETARY
BOARD OF CHURCH AND SOCIETY
UNITED METHODIST CHURCH
IN SUPPORT OF THE ENERGY CONSERVATION CAMPAIGN
FEBRUARY 22, 1979

When the moral imperatives of religion intersect with the critical needs of the nation, the Christian church is impelled to act. This is one of those times.

We are therefore happy to support and promote the Energy Conservation Campaign among our United Methodist churches. Even if Americans had all the energy they wanted, it would still be appropriate, from a Christian perspective, to encourage stewardship of world-scarce non-renewable resources. In the nation's current dilemma, with oil shortages a grave reality, and future cutbacks threatening, church people have a special responsibility to stress conservation of energy usage.

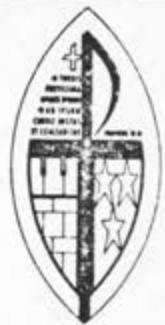
I would like to share a brief portion of the resolution on "Energy" passed by the General Conference of the United Methodist Church at its 1976 meeting in Portland, Oregon. On behalf of the church, these duly-elected officials declared:

"Christians have a special concern regarding energy use and resources. Responsible stewardship of the earth, air, sky and sea stands historically as a religious obligation and opportunity. Thriftiness in the use of God's bounty is not an outworn Christian virtue. And refusing to squander earth's

(over)

LUTHERAN COUNCIL IN THE USA

475 L'Enfant Plaza West, S.W.
Suite 2720
Washington, DC 20024
202 / 484-3950



Statement concerning the Energy Conservation Campaign of the Interfaith Coalition on Energy, February 22, 1979.

It is a privilege for two Lutheran Church bodies to encourage and support the Energy Conservation Campaign of the Interfaith Coalition on Energy. But more importantly, to both the Lutheran Church in America with its 2.9 million members and the American Lutheran Church with its 2.4 million, it is a theological imperative.

This imperative stems from the responsibilities of Christian stewardship of God's creation and its resources. The American Lutheran Church, in a 1970 statement, declares that "we dare not despise, misuse or ignore what God created," and that "our response to the world God created is properly neither fear nor greed." Consequently, the crisis "calls not only for public policy decisions, but for the reevaluation by every individual of his role as a consumer of goods, services and power, and as a molder of public opinion and values." "Not only in its word, but also in its deeds," the ALC statement asserts, "the whole of Christ's Church should be in the forefront of those who care and act in the environmental crisis."

In 1972 the Lutheran Church in America affirmed that "God's commission to humanity to have 'dominion' over the earth and 'to till it and keep it' calls for responsible stewardship of the earth" and that "in its preaching and sacraments, worship and evangelism, education and social ministry, the church is called to teach this biblical understanding of human beings and nature as God's interrelated creation." In addition, the LCA warns that "there is little hope of arresting the mad rush toward ecological disaster unless a very large number of persons and institutions renounce certain values which have

The Covenant for Conservation Campaign is sponsored by

The Interfaith Coalition on Energy

American Baptist Churches, USA, National Ministries

Board of Church and Society, United Methodist Church

Commission on Social Action of Reform Judaism

Jesuit Social Ministries Office

Office for Church in Society, United Church of Christ

Union of American Hebrew Congregations

Lutheran Council in the USA

Washington Office, United Presbyterian Church

Church of the Brethren

NETWORK

Covenant for Conservation

*How many are your works O Lord; in wisdom you have made them all.
The earth is full of your riches. . .
All look to you to give them their food in due season.*

—Psalm 104

*Well done! You are an industrious and reliable servant.
Since you were dependable in a small matter I will put you in charge of larger affairs.
Come, share your master's joy!*

—Matthew 25:21

We have a duty to emphasize the moral value of self-restraint to further social justice, e.g. to slow up the growth in energy demand...; and to make possible a fairer sharing of the existing and limited energy resources among a growing world population."

—World Council of Churches

"The principles of our Jewish tradition stress mankind's responsibility to care for God's earth and to safeguard its resources, thus fulfilling our trust to generations yet unborn. We concur that a central priority of our national energy policy must be conservation."

—Union of American Hebrew Congregations

10C

Interfaith Coalition on Energy
1413 K Street NW / 8th floor
Washington, DC 20005

I join with my faith community in a covenant to conserve energy. As a part of my commitment, I will . . .

- keep my thermostat at 68° during the day, 65° at night, and 62° when no one is home. (Caution: elderly persons need higher temperatures).
- set the air conditioning thermostat no lower than 76°.
- turn my hot water heater down to 60°C. (140°F.).
- turn off unnecessary lights.
- purchase new appliances with conservation in mind.
- use public transportation, car pool, walk, or bike as often as possible.
- choose a car that gets good gas mileage.
- considerably limit my pleasure driving.
- avoid over-packaged goods, highly refined and processed foods, and non-returnable (or recycleable) containers.
- improve the energy efficiency of my house, e.g. with insulation, curtains, shutters, caulking.
- spend the money I save on education, health care, community organizations, etc., and not on energy consuming activities.

Signed _____

I join with my faith community in a covenant to conserve energy. As a part of my commitment, I will . . .

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Signed _____

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The Interfaith Coalition on Energy

American Baptist Churches,
U.S.A., National Ministries

Board of Church and Society,
United Methodist Church

The Commission on Social
Action of Reform Judaism

Jesuit Social Ministries Office

Office for Church in Society,
United Church of Christ

Union of American Hebrew Congregations

Lutheran Council in the U.S.A.

CONFIDENTIAL

PROGRAM FOR SECURING ADOPTION OF U.S. POLICIES TO DIMINISH THE POWER OF THE ORGANIZATION OF PETROLEUM EXPORTING COUNTRIES AND ITS MEMBER STATES

By the late 1960s, with Sam Rayburn, Lyndon Johnson, and other oil state powers gone, the influence of the oil industry on public policy waned. It remains to this day a collection of organized interests, but not powerful interests. The power to create policy passed to consuming state politicians. Unfortunately, there was no well-defined and articulated consumer interest to rally around. Because of the inherent diffusion of consumer interests, no group or corporate body has had the incentive, the credibility, and the capability to organize a consumer interest bloc. So-called 'public interest groups' or 'consumer groups' have thus far been able to organize only on ideological or 'civic balance' principles, thus degenerating into little more than anti-producer coalitions. Outside the producing states, even regional and local economic interests have been poorly thought out, with the result that regional blocs, like the bipartisan New England coalition, as often as not vote against their own economic interests.

--Edward J. Mitchell, Professor of Business Economics, University of Michigan, "Energy Politics: The Irrelevant Debate."

OPEC control of the world petroleum market is made possible by the absence of U.S. government policies directed at weakening and ultimately eliminating the cartel.

Implementation of such policies has been prevented by a coalition of interests within the U.S. which benefit from high oil prices overseas.

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(2)

The pro-OPEC coalition within the U.S. is not invincible. For the past five years, however, it has had the field entirely to itself, unopposed by any organization embodying what Mitchell would characterize as the "well-defined and articulated consumer interest" in rationally-priced and amply available oil and gas imports.

The time is ripe for definition and articulation of that consumer interest. The chief adversary of that interest is not domestic oil companies, but the foreign oil cartel.

Constituent elements would include:

Unions in major industries directly injured by overpriced oil

- International Brotherhood of Electrical Workers
- Oil, Chemical and Atomic Workers International Union
- United Auto Workers
- United Steelworkers of America /higher oil prices = lighter automobiles = less steel = fewer jobs/lower wages/
- International Brotherhood of Teamsters /higher oil prices = decline in competitiveness of trucking industry compared to railroads = fewer jobs/lower wages/
- Maritime Trades Department, AFL-CIO /More expensive marine fuel = decline in competitiveness of U.S. shipping = fewer jobs/lower wages/

CONFIDENTIAL

(3)

--Seafarers International Union

--Industrial Union Department, AFL-CIO

Industries directly injured by overpriced oil

--Automobile manufacturers (Motor Vehicle Manufacturers Association)

--Automobile parts manufacturers (Automotive Parts and Accessories Association)

--Automobile dealers (National Automobile Dealers Association)

--Trucking (American Trucking Associations; Highway Users Federation)

--Bus (National Association of Motor Bus Owners; American Public Transit Association)

--Electric utilities (Edison Electric Institute; National Association of Electric Companies; American Public Power Association; National Rural Electric Cooperation Association; Northeast Public Power Association; Northwest Public Power Association; Tennessee Valley Public Power Association; etc.)

--Gas utilities (American Gas Association; American Public Gas Association)

--Steel (American Iron and Steel Institute; Cold Finished Steel Bar Institute; National Steel Service Center Institute; etc.)

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(4)

- Aluminum (Aluminum Association) [extremely energy-intensive smelting process]
- Telephone [Largest single consumer of electricity]
- Electrical Equipment (National Electrical Manufacturers Association; Air Conditioning and Refrigeration Institute; etc.)
- Apartment (National Apartment Association)
- Airline (National Air Transportation Associations; Air Transport Association of America; National Air Carrier Association)
- Shipping (American Maritime Association)
- Small business (National Federation of Independent Business; National Small Business Association; American Federation of Small Business) [Do not export to OPEC, but must bear higher energy costs]
- Importers (American Importers Association) [higher oil prices = devaluation of dollar = higher prices for imports]
- Agriculture (American Farm Bureau Federation; National Farmers Organization; National Farmers Union; National Grange; Agricultural Council of America; National Grain and Feed Association; National Association of Wheat Growers; National Grain Trade Council; American Dairy Association; National Association of Farm Corporations; etc.) [Energy a major expense, but cannot be passed]

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G.I. Forum; Mexican-American Legal Defense Fund; etc.) /Development of Mexican oil provides funds for industrialization to alleviate illegal immigration of Mexican workers into U.S., a primary concern of Mexican-Americans/

--Welfare recipients (National Welfare Rights Organization)

/OPEC erodes purchasing power of fixed incomes/

--Motorists (American Automobile Association) /Concerned about gasoline embargo threat and price increases/

--Consumer organizations (Consumer Federation of America; Nader organizations e.g., Public Citizen, Congress Watch, Public Interest Research Group)

--Civic and issue-oriented organizations (League of Women Voters; Americans for Democratic Action; American Conservative Union; American Association of University Women; General Federation of Women's Clubs; National Planning Association; etc.)

--Religious (Jewish organizations; Protestant umbrella groups; Catholic Church)

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Press and broadcast media relations

Staff contact with key columnists, editorial writers, reporters, editors, and public affairs program producers to inform them of need to diminish OPEC's power and techniques for doing so; suggest angles for columns, editorials, stories and programs; point out misstatements and inaccuracies in reportage touching on international energy issues.

Seminars and briefings for groups of above personnel, conducted by authorities on international energy policy.

Hot line on international energy policy issues for above personnel, supplying data upon request, arranging interviews with expert and inside sources.

Distribution and elucidation of articles and research reports bearing on international energy policy to above personnel.

Arrangement of appearances by experts on international energy issues on network television public affairs programs.

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Opinion leader relations

Informational mailings to select list of national opinion leaders, e.g., members of National Association of Bank Directors; members of Council on Foreign Relations and regional affiliates; university trustees; members of Business Roundtable; etc.

Development and placing of papers by authorities on international petroleum economics, geophysics, and political science in influential journals and forums.

Advertisements outlining international energy policy options in influential publications, e.g., Foreign Affairs, Wilson Quarterly, Bankers Monthly, Columbia Journalism Review, Scientific American, Change, etc.

Legislative education

Seminars and briefings for groups of congressional and senatorial staff members to inform them of need to diminish OPEC's power and techniques for doing so.

Hot line on international energy issues for legislative staff members.

Legislative lobbying

Contact with key legislators and their key aides to develop legislation incorporating provisions to eliminate OPEC control of international petroleum market,

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including the following:

--Proliferation of non-OPEC hydrocarbon supplies (See appendix)

a) Creation of bilateral aid programs for exploration and development in non-OPEC less-developed countries (LDCs).

b) Specially-earmarked contributions to World Bank, Inter-American Development Bank, etc., for exploration and development in non-OPEC LDCs.

c) Flat limitation of percentage of imports that may come from any one country.

d) Imposition of variable oil import quotas specifying amount to be permitted from each foreign supplier.

e) Augmentation of Overseas Private Investment Corporation program of political risk insurance for U.S. oil company exploration and development in non-OPEC LDCs.

f) Expansion of Export-Import Bank financing for non-OPEC exploration and development.

g) U.S. government participation in financing of non-OPEC oil exploration and development by U.S. companies.

h) U.S. initiation of creation of international agency to provide technical and financial assistance to non-OPEC LDC exploration and development.

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i) Channeling purchases of U.S. governmental and military petroleum needs to non-OPEC suppliers.

j) Purchasing of oil for Strategic Petroleum Reserve exclusively from non-OPEC sources.

k) Import quota with exemption of Mexico and Canada by establishment of "North American Hydrocarbon Free Trade Zone."

--Breaking of "preferred access" link between U.S. oil companies and OPEC countries

a) Oil import quota auction system, requiring competitive bidding for import authorization tickets, with proceeds of ticket sales to U.S. Treasury.

b) Regulation of oil company contracts with oil-producing governments to discourage "open price" contracts guaranteeing preferred access to a country's oil while allowing country to raise prices at will.

1) Permitting U.S.-based companies to enter into long-term contracts only if they specify an advantageous fixed price or one with limited price escalators.

2) Allowing U.S.-based companies to agree to "open price" terms only in contracts with very short durations.

3) Prohibiting importation of foreign crude acquired by any company pursuant to a contract

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which allows the producing country to raise the price unilaterally.

4) Permitting oil importers to pass through to consumers as a cost of foreign crude only the price in effect when the access contract was signed.

c) Control of price at which petroleum is permitted to be imported into the U.S., with "import price differential payments" equal to approximate difference between fixed import price and OPEC price negotiated directly between U.S. and OPEC governments. Adjustment of import price differential payments to reflect responsiveness of each producing country to U.S. energy needs.

d) Requirement that any producing country, oil company or jobber wishing to sell consignment of oil to a U.S. purchaser must offer that lot at auction to highest American bidder.

--Embargo deterrents

a) Announcement of contingency plan for foreign supply disruption, including provision for oil prices to rise to level necessary to clear market, and standby excess profits tax, refundable to consumers.

b) Increase in size of Strategic Petroleum Reserve.

c) Acceleration of creation of Strategic Petroleum Reserve.

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--Economic measures

a) License U.S. bank loans to OPEC countries, with allowable terms dependent on pricing and production policies of each nation.

b) License U.S. investment in OPEC countries, with fees to be adjusted according to responsiveness of each country to U.S. energy needs.

c) License of investment by OPEC countries in U.S., permitting investment only by countries which respond to U.S. energy needs.

d) License U.S. exports to OPEC countries, varying fees according to responsiveness of each country to U.S. energy requirements.

e) Selective boycott of unfriendly OPEC suppliers.

--Security measures

a) Deny arms sales to countries which raise price or cut back production.

b) Make provision of U.S. security umbrella over Persian Gulf regimes contingent upon adherence to minimum annual oil export levels and specified price levels.

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Executive branch relations

Contact with officials of National Security Council; presidential Domestic Council; State Department--Office of Energy and Fuels, Office of Economic Affairs, Policy Planning Staff; Department of Energy--Office of Policy and Evaluation, Office of International Affairs; Department of the Treasury--Office of Economic Affairs; etc., urging prompt incorporation of policies designed to weaken OPEC into U.S. energy and foreign policies, so as to spare administrative agencies risk of legislative mandating of executive action.

Grass roots lobbying

Contact with executives and officials of corporations and organizations directly injured by insecurity and high price of hydrocarbon imports (see above, pp. 2-6) to stimulate lobbying activities by such entities for legislative and administrative action to weaken OPEC; provision of such entities with informational materials for dissemination among personnel and membership; coordination of their lobbying efforts.

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TIMETABLE

By end of 1979

Awareness is created among officials of significant organizations and corporations in affected industries of need for policies to diminish OPEC's power.

Awareness is created among key media personnel.

Awareness is created among key legislative aides and legislators.

Awareness is created among key opinion leaders.

Early 1980

Conference is held of representatives of most significant organizations and major corporations.

By end of 1980

Awareness is created among constituents of significant organizations and affected industries.

Awareness is created among broad spectrum of media personnel.

Awareness is created among broad spectrum of legislative aides and legislators.

Awareness is created among broad spectrum of opinion leaders.

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Legislative proposals incorporating techniques to diminish OPEC control are drafted and presented to key legislators and executive branch officials.

Early 1981

Conference is held to plan organizational and corporate lobbying efforts.

By end of 1981

Awareness is created among informed public.

Administrative action implementing a portion of desired policy proposals has been initiated.

Legislation incorporating policy proposals not being administratively implemented is introduced.

Key congressmen and senators are lobbied.

Early 1982

Conference is held to coordinate organizational and corporate lobbying efforts.

By end of 1982

Awareness among general public is reflected in national opinion polls.

All congressmen and senators are lobbied.

Legislation incorporating provisions for weakening OPEC is passed.

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Administratively-implemented techniques for weakening OPEC are fully operative.

By end of 1983

Legislatively mandated programs are fully operative.

Effect of administratively-implemented techniques for diminishing OPEC power is evident.

Press and broadcast media give major play to prospect of, and implications of, diminution of OPEC power.

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APPENDIX

PROSPECTS FOR PROLIFERATION OF OIL PRODUCTION IN NON-OPEC LESS-DEVELOPED COUNTRIES

While it is anticipated that world oil consumption by 1982 will rise by 5.5 million barrels per day (mbd), the following increases in production outside of OPEC are expected:

U.S.:	
Lower 48 states	.6 mbd
Alaska	1.8
Canada	.1
Western Europe	3.2
China and Soviet Union	.4
Mexico	1.1
Other non-OPEC countries	<u>1.3</u>
Total	8.5 mbd

The increase in non-OPEC production is thus expected to exceed the growth in demand by 3 million barrels a day. OPEC will therefore have to cut back its production by 3 mbd, thus reducing the cartel's revenues and threatening its cohesiveness.

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It would be most advantageous if the U.S. were to adopt policies designed to sustain and augment the growth of production outside of OPEC. These include tax and price incentives for increased development of U.S. domestic resources; use of diplomatic means to encourage increased production from the North Sea; technological assistance to the Soviet Union, and broad-ranging exploration and development assistance to China.

The most highly-leveraged source of new onshore oil production is from discovered, but as yet undeveloped, fields in other non-OPEC countries. These include major fields in Mexico; Cuba; Jamaica; northwestern Argentina; the La Brea-Parinas field in Peru; the Paleozoic play of Brazil; Chad; the Congo Basin; the Etosha Basin in Namibia; Turkey; Labuan Island, Malaysia; Bonaparte Gulf, Australia; New Zealand.

Approximately one-half of near-term new production in non-OPEC less-developed countries is expected to come from Mexico. In the immediate future, the U.S. should therefore drastically augment its grant aid, bilateral and multilateral loans, and technical assistance to non-OPEC LDCs with near-term production prospects, with a special emphasis on Mexico.

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Other non-OPEC LDCs requiring U.S. assistance
include:

LDCs currently exporting oil and/or gas

Brunei
Malaysia
Congo
Zaire
Angola
Trinidad & Tobago
Bolivia

LDCs currently producing oil and/or gas for own consumption

Bangladesh
India
Pakistan
Burma
Turkey
Argentina
Brazil
Barbados
Colombia
Chile
Peru

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LDCs not currently producing oil and/or gas but possessing proven reserves and announced commercial discoveries

Phillippines

Thailand

Papua New Guinea

Tanzania

Cameroon

Ivory Coast

Chad

Benin

Guatemala

LDCs not currently producing oil or gas but having favorable geological prospects for potential discoveries and currently carrying on intensive exploratory activities

Sri Lanka

South Korea

Mozambique

Ethiopia

Madagascar

Rwanda

Burundi

Surinam

Uruguay

April 24, 1978

Mr. Paul A. Mazur
33 Conklin Place
Dumont, N.J. 07626

Dear Mr. Mazur:

Many thanks for your letter of
April 14. I am grateful for your comments and for the
various materials you were kind enough to share.

With kindest greetings, I am

Sincerely,

Alexander M. Schindler

Paul A. Mazur
22 Conklin Place
Dumont, New Jersey 07628
201-384-4871

April 14, 1978

Rabbi Alexander M. Schindler
Union Of American Hebrew Congregations
838 Fifth Avenue
New York, N. Y. 10021

Dear Rabbi Schindler:

In 1973, Dr. Rosenblat predicted that it is inevitable that there will be an erosion of support for Israel in the United States, if the Arab Nations are allowed to become the dominant suppliers of our oil imports. Since that time the Arab Cartel has become our dominant supplier and the erosion of our support for Israel is in an inevitable progression.

Dr. Rosenblat suggested that this progression could be neutralized by finding enough oil in new non-OPEC, non-Communist countries that would liberate the United States dependence for nearly half of our oil requirements from the OPEC Cartel.

I am enclosing a copy of the Moody Report and a copy of Dr. Meyerhof's study of World Oil Basins with regard to our future oil supplies entitled Petroleum 2000. Both of these world renowned geologists who have specialized in the study of giant basins believe that vast amounts of oil will be found in some of these basins. Dr. Bernardo Grossling of the United States Geological Survey in Reston, Virginia also believes that vast amounts of oil exist in the unexplored giant basins of Latin America and Africa.

I have the hope that you will mobilize your Energy Task Force to study the problem and recommend a solution. I suggest Dr. Rosenblat's experience and counsel would be very valuable to the members of the Task Force.

I am also enclosing a copy of the Editor's Page from the U S News & World Report of April 3, 1978 entitled Misfortune In The Mideast which illustrates just one aspect of the attrition of our good will toward Israel. Morton Dean's Report (Channel 2-7 PM - 4/14/78) of a survey of US Public Opinion regarding the political attitudes of Begin versus Sadat illustrates another.

Sincerely yours,

Paul A Mazur

Encls. - 3

OIL & GAS JOURNAL

PETROLEUM
2000

SEVENTY-FIFTH
ANNIVERSARY
ISSUE

AUGUST 1977

Best chances onshore are in C

A. A. MEYERHOFF
Consulting Geologist
Tulsa

MOST of the onshore areas of the world where petroleum will be produced in the future already have been discovered. The largest to be developed are inside the boundaries of the Soviet Union and the People's Republic of China.

Fig. 1 shows some of the areas which the author believes have future potential.

North America

North America has for many decades been a major focal point of the petroleum industry, with more than 16,200 oil and gas fields. Most of these are in the U.S., but many also have been discovered in Canada and Mexico. Certainly the most spectacular discoveries on the North American continent have been made within the past decade—9 billion bbl or more at Prudhoe Bay in Alaska and 40 billion bbl or more in the new Reforma fields of Mexico.

The Alaskan discoveries are by no means finished, but the largest Alaskan discovery, Prudhoe Bay, possibly is unique in that area. Farther west, discoveries in the Naval Reserve have been less than encouraging. Despite this fact, it is possible that a fair number of discoveries will be made in the Naval Reserve and that collectively these will make an important contribution to the Alaska-U.S. economy.

In the remainder of the U.S., the major hopes of the future seem to be in plays such as the "South Slope" of Texas, the fractured Austin Chalk belt which extends from the Mexican frontier northeastward into Louisiana. In this area, within the past 2 or 3 years, several important discoveries have been made and a very sizable belt of Austin Chalk production will be developed during the next few years. The wells are not large but, cumulatively, will have an important impact on the U.S. economy. Ultimate recoverable reserves are unknown, but certainly are at least half those of Prudhoe Bay, and may even be larger.

In addition to the Austin Chalk production, I foresee a large-scale development of pre-Chalk production in the area of the South Slope—from the Buda, the Edwards, the Glen Rose, and even from the Smackover. In fact,

the entire section from Smackover to Austin Chalk, as well as part of the section in the Tertiary, offers very promising exploration targets during the years to come. Thus, the South Slope is not a single play within fractured Austin Chalk, but involves older and younger formations as well.

Additional discoveries will be made in the central and eastern parts of the Gulf Coast, mainly in rocks of Mesozoic age. The Smackover discoveries at Chunchula and Hatter's Pond are indicative of the types of discoveries which may be expected and the depths from which the production will come (5,000-6,000 m).

Another area of the Gulf Coast which has received insufficient attention is Central Louisiana. Here, more than 6,000 m of marine section is present and almost no production has been found. Most of the fields have been rather insignificant discoveries in the Eocene Wilcox.

However, various Cretaceous reef trends go through this area and, ultimately, production will be found from them as well as from some of the Middle and Upper Cretaceous sand-

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|---------------------------|--------------------------------------|
| 1. Prudhoe Bay | 12. Mackenzie Delta |
| 2. NPR #4 | 13. Sub-salt Play |
| 3. South Slope | 14. Arctic Islands |
| 4. Deep Jurassic | 15. Athabasca tar sands |
| 5. Central Louisiana | 16. Chicotepec Basin |
| 6. Deep Paleozoic | 17. Reforma |
| 7. Appalachians deep play | 18. Cordoba area |
| 8. Shallow gas | 19. Tlaxiaco Basin |
| 9. Overthrust Belt | 20. Sebastián Viscaíno Bay discovery |
| 10. Great Basin | 21. Saladillo region |
| 11. Disturbed Belt | 22. Rubalcaba |

Africa

Except for Algeria, Libya, Egypt, Angola, Cabinda, Gabon, and Nigeria, exploration in Africa has been extremely disappointing.

Much of this is related directly to the stratigraphy of much of Africa and to the widespread exposures of continental Paleozoic and Precambrian rocks.

A discovery in Chad, (Fig. 1), appears to offer some promise for the future, and several other discoveries of this type may be made. In addition, there is potential in the Jurassic of Morocco.

The relatively minor production of Tunisia still has not been fully explored or developed onshore. There still remain a fair number of traps to be developed in Algeria, Libya, and Egypt. With few exceptions, these are smaller traps than those now producing, and are only marginally commercial. However, they will be developed through the years. Several giant fields may still remain to be discovered in northern Africa.

Exploration in Zaire has been extremely disappointing, except in the offshore. Much of Zaire is underlain by a huge Jurassic and younger continental basin. If China's experience is any criterion, the presence of continental beds in Zaire does not preclude the discovery of oil. However, the terrain is difficult for operations, and at present there are no economic or political incentives for exploration of this area. Ultimately, the basin could be productive. In the People's Republic of China, Jurassic and younger basins of similar stratigraphy are highly productive.

In the northern part of South West Africa (Namibia), the southernmost edge of Angola, and northwestern Botswana, there is an extensive east-west Paleozoic basin containing up to 8,000 or 7,000 m of marine strata. This is the Etosha basin. Three dry holes have been drilled in the basin. The great size of the basin and the large number

of structures which are present (as determined by reconnaissance seismic work) suggest that this basin might become productive at some time in the future.

Conclusions

Of all of the areas onshore in North America, probably the most important are the Canadian Arctic Islands, the Athabasca tar-sand belt, the North Slope of Alaska, the Overthrust Belt of the northern Rocky Mountains, the South Slope of the Gulf Coast, Central Louisiana, deep parts of the Central Appalachians, the new Baja California fields area, the Reforma fields area of southern Mexico, and the Rubelsanto area (both in Mexico and Guatemala).

In South America the most attractive areas still to explore, in addition to the Orinoco tar-sand belt, include still-undrilled areas in known basins of Venezuela, the late Paleozoic of eastern Ecuador and eastern Peru, many parts of eastern Bolivia which still are undrilled, and northwestern Argentina.

In Africa, several interior basins, such as the Etosha and Chad basins, have some potential, and areas similar to these should be sought and explored. The producing areas of northern Africa have not yet been explored or exploited fully.

The Middle East remains the bastion of the petroleum world and will become an important gas producer from the Permian and possibly from other formations in the years to come. Western Europe offers little potential. The greatest potential areas outside of North Africa and the Middle East are in the Soviet Union and the People's Republic of China.

Finally, there are several areas onshore in Indonesia, Australia, and New Zealand which deserve intensive exploration. To accomplish the exploration tasks suggested in this article will require many years of close cooperation among governments and private sectors.

END

PETROLEUM/2000 • AUGUST 1977



Misfortune in the Mideast

By Marvin Stone

It is disheartening that Prime Minister Begin's meetings with President Carter ended as they began—with a deep chill. For much is at stake in the Mideast and the prospect of peace, rather than brightening, has been darkened by mutual recrimination and a new cycle of violence and counterviolence.

When it comes to assessing blame, there is enough for all to bear.

The Palestine Liberation Organization deserves a major share for its bellicosity and its murderous raid into Israel, coldly calculated to sabotage peace talks.

Egypt's President Sadat does not escape. One could have hoped for more patience once he returned from his initial visit to Jerusalem, rather than the precipitate breaking off of first-stage talks with the Israelis.

Carter has complicated the negotiating process by linking the delivery of warplanes to Israel to the sale of sophisticated fighters to Saudi Arabia. It was meant to show an even hand in the Mideast, as well as displeasure with the Israelis, but the timing was unfortunate.

But what is of the greatest disappointment in this country right now is the policy pursued by the present Israeli government.

In the wake of Begin's March 21-22 meetings with Carter, it is clear that the two leaders are deeply divided over the vital issues.

Whatever the rights or wrongs of Begin's position, many of Israel's friends in the United States fear that the Prime Minister is committed to a course that will force Americans to make an agonizing choice between support for U.S. interests, as perceived by their President, and a Begin policy that they deem unreasonable and potentially disastrous.

For 30 years Israel could count unfailingly on solid American support. That support stemmed from the conviction that Israel was in the right. But it would be a mistake for Begin to assume that he can count on a similar response in the crisis that has now developed.

What has changed? Many believe that Sadat's Jerusalem overture and the beginning of face-to-face negotiations between Israel and Egypt offered the best hope for peace since the establishment of the Jewish state. Now there are questions about Israel's response to that opening, and distress over Begin's positions on two critical issues.

One is his insistence on establishing settlements in occupied Arab territory, which Carter publicly has decried as illegal.

The other is his stand on United Nations Resolution 242, which calls for the withdrawal of Israel from occupied territory as part of a negotiated peace. The Israeli Prime Minister insists that this resolution does not apply to the West Bank and that his country has a Biblical claim to this territory.

The Carter administration commands strong popular support in rejecting that claim and in warning that Begin's policy, if unmodified, will wreck whatever chance there is of peace. Some members of the Senate Foreign Relations Committee, traditionally sympathetic to the Israeli cause, tried to drive that point home when they told Begin on March 21 that his position on the settlements and retention of the West Bank "has divided Israel, divided the American Jewish community and caused an erosion of support for Israel."

This in no way implies a diminution in America's commitment to Israel's security against unpredictable and implacable Arab hot-heads. But there would be little sympathy in this country for an Israeli policy that foreclosed the possibility of a peace by clinging stubbornly to territory for emotional rather than for legitimate security reasons.

Emotionalism is a policy that Begin's predecessors wisely assessed as potentially suicidal. For it risks a fifth Arab-Israeli war and the alienation of the only nation with an unqualified commitment to the survival and future security of the Jewish state.

Testimony of Dr. Arnold E. Safer
before the Energy Subcommittee of the Joint Economic Committee

March 8, 1978

My name is Arnold Safer. I am an economist with the Irving Trust Company in New York City. My remarks today are my own and should not be viewed as necessarily those of the institution for which I am employed.

I appreciate the opportunity to express my views on the energy problems now facing our country.

The principal objectives of government energy policy, within the limits of the immediate technical and political constraints, appear to me as follows:

- a) Achieve the greatest possible self-reliance from unreliable and monopoly priced foreign oil sources.
- b) Prevent energy shortages from causing increasing economic dislocations.

There are really two separate sets of issues associated with the Energy Crisis. The first is an international problem, affecting U.S. foreign political and economic policies. These problems relate to OPEC control of world oil supplies which represents a fundamental change in the world power structure. The second is a domestic economic problem which is related to a changing set of social values among Establishment decision makers in the United States. Present energy policies have so confused these two sets of issues that neither of the objectives are being met, and we are in fact further away from them than we were in 1973. In particular, increasing constraints on domestic energy production have caused an even greater necessity to import oil from OPEC.

While my remarks here today will stress the international dimensions of the problem, I do not believe that actions on the international side alone will provide a panacea for our domestic energy problems. These domestic problems will be solved by a combination of both effective conservation policies and by the timely development of alternate fuel sources, such as coal and nuclear power. Both of these fuel sources today are mired in environmentalist controversies and are not being developed rapidly enough to insure meeting the goals of the National Energy Plan. But there is a more general energy problem related to the concept of energy conservation. Energy and economic growth are tied together; the so-called "decoupling" of energy and economic growth has some clear limits. A more efficient use of energy means sacrificing some growth in real personal income while the capital investments for new energy conservation technology are implemented. Rising energy prices will continue to shift consumer spending to energy and other necessities whose production costs have risen due to energy costs. This means less growth in spending on other less necessary items. As a result, if general economic policy pushes too hard for a more rapid rate of real economic growth, severe inflationary pressures will resume, and another economic recession may follow. Steady and slower growth is necessary until the economy can make the adjustments to these higher energy costs. Pushing too hard for a reduction in unemployment through higher government deficits will make the energy conservation

job that much tougher. Between now and 1985, the economy will grow at a slower rate than during the past decade. The more rapidly it grows now, the greater the likelihood of a recession later. As a result, we may have to tolerate a higher level of unemployment for a few more years until the growth of the labor force begins to slow in the early 1980's.

Turning to the international issues, I will first summarize my remarks and then proceed to a visual presentation of the details.

Natural economic forces today may be working toward a very gradual reassertion of the market power of the oil consuming nations. A slowing in the growth of world oil demand and the expected rapid increase in non-OPEC oil sources suggest that OPEC production peaked in 1977 and should gradually decline to 1980. OPEC will be most vulnerable to consumer pressures during this period, since a number of the more heavily populated OPEC member nations will have an incentive to expand oil production at a time when world demand for total OPEC oil will be gradually declining. They can only expand output at the expense of the more sparsely populated OPEC countries. If Saudi Arabia reduces output to offset increased production by the more populous OPEC nations, it could be reduced to production levels by 1980 which even it might find intolerably low. As another alternative, if Saudi Arabian production in 1980 were held near current levels, other OPEC members would be forced to cut oil production below levels which would permit the

planned implementation of economic development programs already in progress.

U.S. international oil policy should recognize the likelihood of this natural friction within OPEC. The period ahead offers the opportunity to limit the cartel's power over the world oil market and to reach a more healthy accommodation with the legitimate aspirations of its member governments.

Behind this summary is a detailed forecast of future supply and demand trends for world oil, which I will highlight in the following slides.

SLIDE PRESENTATION ON SUPPLY/DEMAND (SEE ACCOMPANYING DOCUMENTS)

I am providing a copy of these slides for the record, as well as a recent report published by the Irving Trust Company which goes into the numerical details.

I would like to turn now to the institutional mechanisms by which oil is imported into the U.S. and by which oil is priced on the international market. If the U.S. is likely to be importing substantial amounts of oil over the next decade, as I have projected, how can we stem the growing balance of payments drain on our domestic economy? Obviously, the first answer is to increase our exports of all goods and services, but a detailed examination of that issue is beyond the scope of this discussion. Second, we should conserve energy, and I believe

that stronger measures are called for than the Congress is apparently willing to approve. A worldwide abundance of oil, as I have projected, does not in any way lessen the need for a more energy efficient economy. In addition to helping to slow the balance of payments drain, an effective conservation program would help to dilute OPEC's monopoly price-setting capabilities. And this leads me to the third and directly relevant factor, namely to seek a lower price for international oil, or at the least to put into place new mechanisms which limit the capability of OPEC to further increase world oil prices. For example, in the international diplomatic arena, it would be helpful to establish the fact that some kind of market exchange system would be a better mechanism for determining the price of oil than an international treaty based upon political perceptions of a "fair" price. The replacement cost of synthetic energy sources is not a realistic basis for oil pricing; nor is the indexing of oil prices to world inflation a useful departure point for international oil negotiations. Both pricing approaches make little economic sense in the long run and would simply add to the misallocation of the world's resources, both physical and financial. A market exchange system for oil, possibly regulated by representatives of both consuming and producing nations, would be a more useful approach. And it is over the next few years, when the consuming nations may well be able to exercise significant market influence over the OPEC states, that this approach might be

successfully applied.

To be specific, I would recommend a detailed examination and debate over the following complementary approaches for dealing with the monopoly power of OPEC. First, the system of foreign tax credits may help to link the interests of some international companies with those of some OPEC members. As a general proposition, the companies should be encouraged to bargain for crude oil at arm's length, thereby promoting competition among the OPEC states for world markets. The present system of foreign tax credits for certain crude oil purchases may not be helpful in achieving that objective. Second, the U.S. government, together with other international financial agencies, should aid in the financing of oil exploration outside the U.S., primarily in the non-OPEC developing countries. The benefits of this policy should be apparent in terms of potentially adding to the world's supplies of oil and gas, in terms of relieving the balance of payments position of some of these countries, in terms of diluting some of OPEC's price-setting powers, and finally in terms of encouraging more competition in international oil markets. I believe that this additional financing should be complementary to the private sector, engaging perhaps in those ventures where the economic or political risks may be too great for private industry. Third, I support the ideas of Prof. Adelman of MIT concerning the adoption of a bidding system for U.S. oil imports. Essentially, Adelman suggests that the U.S. government estimate our oil import

needs and then use an auction technique to apportion that amount among would-be suppliers of imported oil. The competitive bidding for the right to sell this clearly defined quantity of oil would put each supplier under pressure to sell at a lower price in order to gain access to a larger share of the U.S. market. It seems to me that in the present surplus state of the oil market, this approach has an appreciable prospect for achieving some success. Finally, the development of an organized exchange market for oil products would help to make the pricing process more competitive. There are some futures contracts for certain oil products now being developed by the commodities exchanges in New York. I believe that an open, visible pricing system for oil products would eliminate some of the need for excessive domestic regulation and thereby help both the Department of Energy and the oil companies. To the extent that a surplus appears in the market, the trading of the future's contract will help to insure that oil prices react. And if product prices decline because of slow volume, this will be felt by the refiners who will ultimately cut their production, which in turn will feedback to the crude suppliers. This process could then translate into lower crude oil prices, as crude suppliers compete for market share.

None of these recommendations alone will likely be sufficient to dilute OPEC's hold on world oil prices. Taken together, however, they would certainly alter the expectations of oil market participants, both private companies and govern-

ments. Nevertheless, for the U.S. government to adopt these approaches, some of the concern over offending certain OPEC members would have to be reduced. Oil remains as much a commercial question as a political one. OPEC is a seller; the U.S. is a buyer. Our market interests, therefore, diverge. We can still be the best of political allies with the member governments of OPEC, but we can still bargain with them over the price of oil. I believe that the broad approach to international oil pricing problems should be to "take the politics out of it" as much as possible.

Thank you.

U.S. Oil Policy: Implications For The Mideast

By

Dr. Arnold E. Safer
Vice President-Economics
Irving Trust Co.

Presented to:

American Political Science Association
Washington, D.C.
September 2, 1977

Disclaimer: The opinions expressed are the author's and do not represent those of the Irving Trust Company.

Introduction:

The most serious flaw in the President's energy package is its virtual silence about OPEC. If the President is asking the American people for sacrifices, then he should be prepared to tell them what plans he might have for at least attempting to dilute the price-setting powers of the cartel. Present sacrifice should have the prospect of future reward.

A Different Economic Perception:

The Administration contends that the world as a whole is facing a physical shortage of oil as early as 1985. That proposition is open to question. There is an economic shortage in the U.S. because controls hold prices below market clearing levels. The U.S. may have a physical shortage at current controlled price levels; but it is improbable that the world as a whole is facing such a shortage. By the end of 1977, OPEC will have excess capacity of 12 MMB/D, some 25% of non-communist world consumption. And that is only in terms of the producing capacity of proven oil reserves! According to even the most conservative geologists, ultimately recoverable oil reserves around the world are vastly in excess of what the world will need for several decades. If world oil supplies run short in the next 20-25 years, it will be due to the politics of oil conflicting with its economic and engineering requirements.

Soaring energy costs today are less the result of impending physical shortage than of OPEC's monopolistic pricing practices. Until the OPEC issue is recognized, dealing with the physical shortage alone may be costly and ineffective.

In his energy program, the President has stressed the goal of reducing U.S. oil imports over the next eight years. Through a mix of energy conservation and new supplies of alternate fuels, the President hopes to gradually reduce our dependence upon OPEC oil supplies. Although the President did not explicitly state that one objective of his energy program might be to dilute the price-setting power of the oil cartel, the goal of reducing U.S. oil imports implicitly leads to the conclusion that the U.S. would like to achieve a greater influence over the setting of international

oil prices. Thus, if our contention is correct that it is only the U.S. which has a temporary physical shortage, sufficient oil supplies will continue to be available from other countries. Therefore, we should be able to change the mechanism by which we import our oil today, and thereby at least try to obtain better commercial terms for our oil imports.

Technical Proposals

Various technical plans have been proposed for altering the oil import system. These range from a complete takeover of all oil imports by the U.S. government on the one hand, to granting an anti-trust exemption to the international oil companies so they can more effectively bargain with OPEC, on the other hand. More recently, proposals have been made to change the system of foreign tax credits granted to American oil companies, thereby changing the profit incentives of the companies in their dealings with OPEC. Perhaps the most widely known proposal for altering the oil import mechanism is the so-called Adelman Plan, involving a system of secret bidding for the right to sell foreign oil in the U.S. Professor Adelman of M.I.T. proposes that each month, the U.S. government should set an import quota and auction off import tickets to those who would like to sell foreign oil in the U.S. An oil company, an OPEC government, or anyone else who might have foreign oil to sell would have to submit a sealed bid as to the amount he would pay for his oil import franchise. The U.S. government would collect those revenues from the sale of the import tickets and rebate them back to the American public. If a foreign oil exporter desired to increase his U.S. market share, he could increase the amount which he would pay for the import ticket, and thereby presumably accept less on a net basis for his oil. The potential would be created for one OPEC country to secretly compete with the other.

Market Conditions:

The "sealed bid" approach, or other plans to stimulate competition in the international crude oil market, become attractive options for dealing with monopoly pricing provided

that market conditions exert sufficient pressure on some OPEC members to expand their oil exports through price-cutting. Since growing surpluses in the international oil market are likely to occur, at least between now and 1980, the time may now be opportune to take direct action to dilute the price-setting powers of the oil cartel. International action does not minimize the need for a strong domestic Energy Policy, but in fact reinforces that need.

OPEC's recent unity on pricing, as well as its benign stance toward oil-consuming nations, may be an attempt to cover up a major underlying problem it will have to deal with over the next two or three years. Even as world demand for oil remains sluggish, new oil sources are coming on stream. Between 1977 and 1980, world consumption (outside the communist bloc) is likely to increase by only 4 or 5 million barrels per day. Yet new oil supplies--from the North Sea, Alaska, Mexico and many other sources--will increase by 6 or 7 million barrels per day. For OPEC as a whole, this means declining sales; for some member countries, it will mean cutting back oil production. And, as almost every OPEC member is realizing, rising import costs are making it almost impossible to cut back oil exports without jeopardizing development objectives.

The way for any one OPEC country to maintain its oil sales in the face of declining demand would be to cut prices. The incentive to do so will grow as excess capacity builds within OPEC over the next two or three years. To prevent this, OPEC must either set up a centralized allocation system or agree to lower prices in an attempt to stimulate overall demand. The adoption of either alternative will further erode OPEC unity and will mean increased bargaining power for the consuming countries.

The timing may now be critical. The period 1978-80 offers the best opportunity to dilute the cartel's influence over the world oil market, or, at the least, to reach a more healthy accommodation with its legitimate aspirations.

A Different Political Perception:

Yet, why has there been little or no U.S. government response in this direction? The answer, it seems to me, is a fundamentally different perception of the energy problem

on the part of U.S. Mideastern policymakers. First, forecast worldwide oil shortages in the 1980's. Second, and as a consequence of this projection, emphasize how dependent the U.S. is upon Mideast oil for the viability of its economy. Finally, couple this oil dependence with growing Arab economic influence to suggest a diplomatic tilt toward the Arab side of the Arab-Israeli dispute.

The corrolary to this theorem is that any attempt to confront the OPEC cartel on commercial grounds could be destabilizing to Mideast politics, particularly in the Persian Gulf. That is, if intra-OPEC frictions grow as a result of competitive pressures in the oil market, there could be increased instability in the Mideast oil producing nations. In this volatile area of the world, violence could erupt and could cause serious physical damage to oil producing and transportation facilities, thereby halting the flow of oil. Or, intra-OPEC frictions could even result in the overthrow of conservative pro-Western Arab regimes, and open up possibilities for increased Soviet influence in the Persian Gulf. Thus, it seems to me, that the U.S. government will not attempt to dilute the price-setting powers of the OPEC cartel, at least not directly, but rather accept the monopoly price of international oil and the continuing economic damage which it is doing. This acceptance of the cartel and the dominant role played by the Arabs within OPEC, means a continued erosion of support for Israel in the diplomatic arena. Because, if push comes to shove, the political perception exists that the Arabs can again cut off the oil, or severely damage the economy by raising oil prices significantly.

On the other hand, a different reading of the international oil problem would result in a different political perception of an appropriate U.S. policy role in regard to the Arab-Israeli conflict. If the U.S. were to adopt an international oil policy which attempted to dilute OPEC's monopoly power in the international oil market, seeking in fact to reduce international oil prices during the coming period of market surplus, then a strong, democratic Israel would become vital to U.S. interests if and when a split within OPEC led to increased political instability in the Mideast. That is, if intra-OPEC frictions on commercial oil policy grounds lead to both a lower price for international oil and increased unrest in the Persian Gulf, then a strong Israel may be our best ally

for controlling the diplomatic, economic, and military situations. How long the current regime in Saudi Arabia and the dictatorships in Iran, Iraq, and Libya can last may be independent of what the U.S. does anyway. For example, a recent report from Saudi Arabia states that 1500 army and other officials were arrested for plotting a coup, apparently backed by the Libyan government. Discovered by an Egyptian military advisor, these events could explain last month's border war between Egypt and Libya. But to the extent that commercial actions by the U.S. might be related to growing instability within or among these OPEC nations, then the capabilities of the U.S. to respond to potential left-wing, Soviet backed regimes in the Arab world would be enhanced by increasing the U.S. commitment to Israel. In other words, it's not a one way street heading in the Arab direction, as currently perceived by some Mideastern policymakers in the American government.

Conclusions

To summarize, as political perceptions now exist, attempts to dilute OPEC's price setting powers along commercial lines become counter-productive to the diplomatic thrust of maintaining OPEC's cohesion in the interest of maintaining Mideastern political stability. Unless this perception is turned around, it seems to me that U.S. foreign policy will increasingly tilt toward the Arab cause and away from the Israeli. Domestic political pressure by U.S. Jewish groups for greater American support of Israel will be ineffective rhetoric in the face of the reality of growing Arab dominance of the world's oil supplies and of vastly increased Arab economic influence. Hence, before the U.S. government even contemplates new commercial mechanisms for the import of oil, in the interest of attempting to dilute OPEC's price setting powers, present foreign policy perceptions will have to change significantly.

Washington & Business

A New U.S. Strategy on Oil—Conciliation

By STEVEN RATNER

WASHINGTON — Department of Energy officials are pointing to what they say is a new international strategy—conciliation—in place of confrontation.

In past administrations, high energy officials maintain, the members of the Organization of Petroleum Exporting Countries were treated as adversaries who received harsh words and deserved harsh actions.

Now, these officials maintain, the dialogue has been softened and Government rhetoric has stressed mutual interests and the need to recognize common problems.

"We have taken a very, very complete dedication to an open, nonconfrontational approach," a senior energy official said.

Energy officials, who did not want to be quoted by name, traced the change in approach to a different analysis of the oil supply outlook. Top officials of the department, including Secretary James R. Schlesinger, have argued that almost regardless of OPEC actions, world oil supplies will run short in the middle 1980's and price increases will inevitably result.

On that logic, the officials see little benefit in attempting to produce lower oil prices by breaking the cartel or by jawboning. Such actions, they contend, would only derail efforts to use the current high prices to encourage conservation and development of alternative sources. At the same time, a reduction in oil prices now would only mean a steeper rise in the 1980's when supplies run short, they argue.

"In 1973, nobody recognized what the long-term oil supply situation was going to be," said one high official. "Because we recognize this is a common problem, our approach is different."

By contrast, the official said, "some of the Ford Administration people never understood the supply situation. If you don't believe there is an oil problem coming, you have to fight with OPEC."

"We certainly didn't look for confrontation but we did ask for reasonableness on both sides," said Frank G. Zarb, administrator of the now defunct Federal Energy Administration at the time. "The most significant element of the international strategy they are pursuing was started by us—the stockpile program."

"I don't discern any difference from what they say now from what Frank and I believed," said John A. Hill, then Mr. Zarb's deputy.

Current energy officials ascribe much of the confrontational attitude to William E. Simon, at first head of the Federal Energy Office and later Secretary of Treasury.

"In Simon's view, price was everything, market forces were everything," a current official said. "He felt you had to crush interference with market

forces so the underlying premise became one of confrontation."

Mr. Simon could not be reached for comment.

Energy officials have been stressing the importance of working with the major producers particularly to increase the exchange of information. Greater knowledge of the producers' plans, intentions and capabilities can help the United States improve its own energy planning, the officials believe.

For example, confusion has surrounded Saudi Arabia of late with regard to the technical capabilities of its oilfields, its plans for future investment in production equipment, and projections on production.

All these questions bear on the issue of what the oil supply picture will be in the mid-1980's. That in turn is a key element in the current debate over how important expensive alternative fuels technologies will be after 1985.

To try to implement the strategy, Mr. Schlesinger and his top aides have in the last year visited key nations. For example, in January, Mr. Schlesinger, Harry E. Bergold Jr., Assistant Energy Secretary for International Affairs and other officials visited Saudi Arabia and Morocco.

Earlier, Mr. Bergold and Deputy Secretary John F. O'Leary visited the Soviet Union, the world's largest oil producer. A disagreement is raging over how much oil the Soviet Union, which is not a member of OPEC, will export to the West after 1985.

Mr. Schlesinger is tentatively planning to go to Iran and possibly Saudi Arabia later in the spring.

Moreover, a major delegation attended the meeting of the International Energy Agency in Paris last fall, although the current policy would suggest a shift away from the I. E. A., which was formed as an organization of consumer countries to face OPEC as a united front.

Another aspect of the current international orientation involves identifying the potential major new producers so that diplomatic efforts can begin as early as possible. In this category, the energy officials are now weighing such possible sources as offshore Argentina and Chad, in addition to Mexico, China and the Soviet Union. Top officials from Mexico and China visited Washington in recent months.

The New York Times

THURSDAY, MARCH 2, 1978

IRVING TRUST COMPANY

ONE WALL STREET

NEW YORK, N.Y. 10013

ARNOLD E. SAFER
VICE PRESIDENT

March 1, 1978

Prof. Steven Spiegel
Dept. Of Political Science
University of California - Los Angeles

Dear Steve,

I am writing to express a degree of frustration with the approach taken to energy problems by many in the Jewish leadership, especially in their discussions with the administration. The American Jews are finding themselves increasingly unable to stop the U.S. foreign policy drift away from Israel. Sadat demands all of the Sinai and the Palestinians demand a homeland in the West Bank and Gaza. That's for now. Next, the Syrians will demand all of the Golan Heights, and the Saudi's will demand all of Jerusalem. Finally, all of the Arab states will demand that the Zionist state be eliminated. All of these demands will be negotiated by the U.S. under the pressure of Arab oil, and increasingly, of Arab money. Any U.S. government, be it Republican or Democrat, will continue to judge Mideastern policies in the light of another oil embargo, at least for the next decade. The business community wants sales to Arab countries; the bankers want Arab deposits and investments. Even the universities, hospitals, and non-profit organizations want Arab grants. The only group that seems to see through much of this is organized labor, but that's largely because of George Meany. After he goes, organized labor may well tilt toward the Arabs as well, as business and government increasingly make the argument that Arab oil and Arab purchasing power are vital to the health of the U.S. Economy.

All of this is not new to many in the Jewish leadership, but they seem afraid or incapable of making the oil link in their discussions with government officials. Settlements in the Sinai or the West Bank, arms sales to the Arabs, day-by-day negotiating nuances between Begin and Sadat, and even the moral and historical issues are all today clouded by the link to Arab oil. Not that these longer-standing issues are unimportant, but the psychological preceptions of those who may have had a neutral or indifferent position on these longer standing questions are now swayed by the necessity to maintain access to Arab oil supplies. Thus, when the discussions focus on these legitimate political questions, there is less dialogue and more dispute, because of the constraint upon the U.S. government imposed by Arab oil.

Yet neither side goes into much detail about the real nature of this Arab oil threat. The Administration, in its attempt to oversell conservation, has convinced itself of a world-wide oil shortage by the mid-1980's. That's looking like sheer nonsense today. Conservation makes sense because energy is costly and because the more we save the less we drain our own economy to pay for Arab oil at monopoly dictated prices. But not because the world will run out of oil and thus become hostage to every Arab demand concerning Israel. That is the message about oil which the Jewish leadership must convey.

Yet, it seems to me, out of confusion or lack of knowledge, the Jewish leadership entirely dismisses this energy message, or at the least relegates it to a subordinate position in its discussion agenda. As a result, there is increasing frustration with the government and increasing impotence to sway official decision makers. I believe that tackling the international oil issue directly, and seeking to change Administration thinking around in the energy area may ultimately pay off in discussions about Israel.

To form a cohesive international oil policy among the American Jews, I would recommend an immediate conference on this issue, focusing primarily on the international dimensions of the oil problem. After that, a major public relations or media campaign to turn the perception of this government around. Then, the Jewish leadership may make more progress with the Administration over the Arab-Israel dispute. In other words, pressure by American Jews (and perhaps by non-Jewish groups) should be brought on the Administration, preferably in public fashion. First, the Administration is selling Israel out for oil and Arab wealth. Second, why not do something about the OPEC monopoly, and recommend our program. Not only will this program break the oil logjam, but if successful will be of enormous benefit to the U.S. economy and to the independence of U.S. foreign policy.

Sincerely,

Gerald



TSAI FORUM
MON. - MARCH 13

DR. ARNOLD
SAFER

A Hard Choice: More Recession —Or More Expensive Oil?

That's the global dilemma that Department of Energy experts see—and it explains why the U.S. isn't seriously trying to break or weaken OPEC.

By JAMES COOK

WHY ISN'T the U.S. government taking advantage of the current oversupply of oil to try to break the Organization of Petroleum Exporting Countries? Or, at least, to bring down the price?

The blunt answer is: It doesn't want lower prices for oil.

The best thinking in the Carter Administration is that such a course of action, even if it could be undertaken, would be advantageous only temporarily and dangerous for the long run.

"The price of oil," says an Administration source, "ought to rise 10% or more a year, at least at the rate of inflation and a couple of points besides." He's talking, then, of \$20 a barrel by 1983, \$25 by 1985—a doubling in seven years.

Why are the Administration policymakers acquiescing in developments that are seemingly at odds with U.S. interests? Because they are convinced that oil prices can be held down only at a

price of worldwide recession and political and social instability.

"People on Capitol Hill jump all over us these days," says one high Carter Administration energy official, "to use the current worldwide glut of oil to beat the crap out of OPEC, lower the price of oil, break up the organization. I'm afraid the answer is, 'Lots of luck.'"

The congressmen aren't the only people who are jumping all over. Last fall an International Trade Commission study concluded that there would be no shortage of oil in the foreseeable future.

In January the General Accounting Office issued a report that argued that, with oil supplies abundant, the U.S. ought to use its great technological, managerial, financial and military strength to obtain some control over the price of oil. Then in February, as newspapers always do after OPEC meetings, the *New York Times* began running stories with headlines like "WILL OPEC DROWN IN A SEA OF OIL?"

The current oil glut was so considerable that when OPEC gathered in Caracas for its semiannual price meeting last December, the leaders of the cartel, Iran and Saudi Arabia, decided to hold the line on prices. And last month Iran's Prime Minister Jamshid Amouzegar announced that there would be no price increase later in 1978, either. The conclusion is pretty obvious: If there was ever a time when the consuming countries had a chance to regain the upper hand, that time is now.

Who is right? Those who think there is plenty of oil for the foreseeable future? Or those in the Administration who see a squeeze coming? As in most such arguments, the conclusions depend pretty much upon the assumptions. Those who think that oil is going to be plentiful—like Irving Trust economist Arnold Safer—generally assume that economic growth will continue to be slow worldwide. Thus demand for oil will grow slowly, about 2.5% a year vs. a long-term

...elsewhere who think that an oil shortage looms are assuming, in sharp contrast, a somewhat higher rate of growth, one that will at least enable the poorer countries to keep their heads above water.

But it's not simply a matter of demand. The slow-growth-oil-glut adherents tend to be as optimistic about supply as they are pessimistic about demand. Economist Safer, for instance, sees non-OPEC production as more than meeting any increases in demand for some time to come. He predicts that between now and 1982, for instance, consumption will rise by 5.5 million barrels a day, while non-OPEC oil production will pick up by 8.5 million barrels a day, with the result that OPEC production will drop from 30 million barrels a day to 26 million. With OPEC producers crowding to maintain their market shares, Safer argues, it should be possible to break the OPEC cartel or at the very least force down the price.

Nothing could be further from the view that prevails in James Schlesinger's Department of Energy and elsewhere in the Carter Administration. Break up OPEC? Lower the price of oil? Preposterous.

Long before OPEC took power, people in the State Department who thought about such things became convinced that the price of oil was going to go up, and sought to prepare the world for the inevitable. It ought to go up, they argued, because the world was running out of it, because higher prices would encourage conservation and help finance the development of alternative energy supplies, and even because our friends and allies needed the revenues. And the truth of the matter is that these considerations still shape U.S. policy. "Clearly it would not be in our national interest to have the price of oil go down," says Melvin A. Conant, energy consultant and former government energy official. "It has got to stay high and go even higher. But this is absolutely impossible for any political leader to say."

This view prevails in Washington today. The conviction in the Administration is that the oil shortage is going to hit a lot earlier than anyone expected—as early as next year or the year after—so that instead of confronting the cartel, the Administration is seeking even closer cooperation with it. "To the extent that the things we did in 1973 or 1974 aimed at attacking or breaking up the cartel," says

for International Affairs in the Department of Energy and Schlesinger's closest aide, "we have changed our policy. We're trying to let the key producers know we're prepared to work with them."

"The severity of the underlying problem," Schlesinger himself testified to a congressional committee last month, "is veiled by the fact that currently the U.S. and the world are in a temporary period of excess oil supply. . . . The principal oil exporting countries are likely to have difficulties in supplying all the increase in demand expected to occur in the U.S. and other countries throughout the 1980s."



Now Or Never: Now's the time to put the screws on OPEC oil prices, says economist Arnold Safer (right). Not at all, says DOE pooh-bah Harry Bergold. Prices ought to go up.

In the real world, of course, shortages do not really materialize. Prices shoot up to bring supply and demand into balance, and that's what the Carter people foresee: As consumers begin to perceive a shortage, the market will start taking over from the cartel. "Depending on economic growth," says Bergold, "there could be a shortage as early as 1980, 1982, 1983. By 1985 there could be a significant rise in price."

At the center of the problem is Saudi Arabia. Until a few months ago, most government officials and oilmen considered it likely that, when the world needed it in the mid-1980s, Saudi production would rise from the current 8.5 million barrels a day to as much as 19 million.

But State Department strategists have already cut back their estimates of current Saudi capacity to 9 million barrels a day, and foresee a maximum of 12 or 12.5 million barrels a day of production for 1985. And that old 19-million-barrel target? "I would characterize that as science fiction," says one DOE official.

It's not simply a technical restraint, a matter of the capability of the Saudi

oil fields to achieve a given level of production. It's a combination of all the economic, financial, technical and political considerations that play upon Saudi Arabia: the uneasy politics of the Persian Gulf and the Middle East, the financial problems generated by oil revenues so vast that they cannot be productively invested, the cost of increasing production substantially. "Now that they're spending the money themselves, and not making Aramco do it," one observer says, "the Saudis are thinking twice about whether they don't have better things to do with \$25 billion than to sink it into expanding their oil production to levels that only increase their financial problems."

So the Administration is downgrading what was generally considered the effective production capacity of OPEC—what OPEC *actually* will produce under present circumstances—from 38 million barrels a day to 33 million, 32 million if you consider the slack normally needed for operational requirements. "In our judgment," says one State Department official, "demand for OPEC oil in 1980 will be about 33 million barrels a day." If this is correct, OPEC, with production last year of over 31 million barrels a day, is already perilously close to capacity.

If the world will accept continued slow growth, high unemployment and a progressive weakening of the poorer economies, a good case could be made that there is plenty of oil. But if you assume the U.S. will remain committed to a high economic growth rate, that Japan and Germany will begin to stimulate their economies and that the prosperity will spread across the world, then the comfortable estimates about oil supply no longer seem valid.

Such a policy will require some particularly delicate balance: enough growth to ease the world's economic problems, but not so much as to send oil prices into the stratosphere and so damage a world economy that yet recovered from the 1973-74 price rises. Which is why the Carter energy program is so heavily committed to conservation: Every barrel conserved is another barrel available to fuel economic growth without putting upward pressures on prices.

"Do we want to avoid an oil crisis at the cost of stagnating the world economy?" a State Department official asks. If the answer is "No," it is hard to be optimistic about oil prices staying down. Next December's OPEC meeting is unlikely to be a rerun of last December's. ■



The Economic View from One Wall Street

Economic Research
& Planning Division

December 1977

INTERNATIONAL OIL REVISITED: COULD THE EXPERTS BE WRONG?

Most experts agree there is an excess of crude oil in world markets. They also concede that oil supplies will continue to be available in ample quantities through at least 1980. They warn, however, that at some point between 1980 and 1985 the world will "run short" again and will probably be hit with another major price hike by the oil cartel. Yet, as this report attempts to show, there is no reason to expect a major oil shortage between now and 1985 given present supply and demand trends. In fact, there is reason to believe that world oil markets will continue to experience surplus conditions through at least 1982 and will not revert to shortages as many observers in both industry and government expect.

This is not to say that the United States will become less dependent on foreign oil. Future U.S. dependence will be determined by the mix of demand growth and new energy supplies, including both non-oil sources that can be brought on stream and major offshore oil discoveries that may be made in the next few years. The U.S. Government's energy policy will affect both energy consumption in the short run and the magnitude of new energy supplies in the longer run. (This is especially true for new natural gas supplies.)

The particular problems in the United States, notwithstanding, the very rise in world oil prices begun in 1974 is likely to lead to major oil surpluses around the world in the years ahead. Both geology and economics support this view; it is largely political trends which suggest the scarcity theory. First, the world's proven reserves of crude oil were some 15 billion barrels higher in January 1977 than they were in January 1974, when the so-called Energy Crisis burst onto the scene. In other words, over the past three years new discoveries outpaced consumption by an average of 5 billion barrels per year, extending our future oil consumption horizon from about 31 years to 33 years. Second, new reserves from the North Sea and Mexico are likely to be identified rapidly over the next two or three years, so that the world's proven reserves will continue to increase at least into the early 1980s.¹ Third, to the extent that the geologist's concept of ultimately discoverable reserves is at all useful, the world is estimated to contain some additional 1.5 trillion barrels, or enough oil to last for another 65 years at projected future consumption rates. Fourth, with world economic activity likely to remain sluggish for some time ahead, there is little possibility of a major boom in petroleum demand. Finally, U.S. energy policy is now committed to allowing higher prices for newly discovered natural gas, either through deregulation or through continued regulation at higher prices. The prospect of higher prices has encouraged significant new drilling which in turn could lead to a greater availability of natural gas, thereby arresting the trend toward substitution of oil for gas. While other energy sources, such as coal and nuclear power, remain mired in environmentalist controversy, drilling for new oil and gas in the United States and around the world is proceeding at a rapid pace.

1. Proven reserves represent expensive capital committed to inventories. No business chooses to tie up more capital than it has to, so proven reserves have seldom exceeded 30-35 years of worldwide consumption. In the U.S., where competition has forced an even tighter inventory control, proven reserves have seldom exceeded 12 years of consumption.

In light of all these trends, we are projecting a continued easing of world oil markets at least through 1982 and potentially through 1985. Not only will more abundant oil supplies offer the prospect of lower oil prices (in real terms), but they will create the market environment in which the U.S. Government could develop policies to dilute OPEC's price-setting powers. Within the context of this gradual shift of the world's oil markets toward an excess supply condition, U.S. energy policy should seek to change the commercial mechanism by which oil is imported. Without this change, it is unlikely that oil consumers will benefit optimally from the improved market conditions.

World Oil Consumption

From 1955 to 1973, world oil consumption grew at an average rate of over 7% per year; since 1973, annual world oil consumption has grown at only slightly over 1%. High prices, slow economic growth, and a new emphasis on energy conservation have all contributed to the sharp decline in the growth of oil consumption.

Table I
Projected World Oil Consumption*
(MMB/D)

	<u>1973</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981**</u>	<u>1982...1985</u>	
	--(actual)--		(est.)	-----forecast-----					
U.S.	17.3	17.4	18.4	19.1	19.8	20.5	20.2	21.4	23.5
Canada	1.7	1.8	1.8	1.9	2.0	2.1	2.0	2.1	2.3
W. Europe	14.5	14.3	14.1	14.3	14.8	15.1	14.2	14.9	16.3
Japan	5.0	4.8	5.0	5.2	5.6	5.7	5.3	5.5	6.0
Other	<u>8.8</u>	<u>10.1</u>	<u>10.2</u>	<u>10.5</u>	<u>10.8</u>	<u>11.1</u>	<u>11.0</u>	<u>11.1</u>	<u>12.4</u>
Total	47.3	48.4	49.5	51.0	53.0	54.5	52.7	55.0...60.5	

*Excludes Communist countries. Historical data from American Petroleum Institute; projections by Irving Trust Company.

**Year of projected world recession.

Table I contains our projection of world oil consumption to 1985. In 1976 the world consumed 48.4 million barrels per day; by 1985 we expect an annual consumption rate of 60.5 MMB/D. This is an average annual increase of 2.5% per year--a rate of growth higher than in the recession-ridden 1973-76 period but substantially lower than the long-term rate prior to 1973. Our estimate of a 2.5% increase in 1977 world oil consumption reflects the mixed economic performance around the world. In the United States, real GNP is expected to increase about 4.5%-5.0% in 1977, with oil consumption growing at an even faster rate of 5.5%-6.0%, due in part to last winter's cold weather. In Western Europe, however, oil consumption has declined as a result of sluggish economic performance; in Japan we expect only modest growth in both the economy and in oil consumption.

Between 1977 and 1980, we are projecting a 3.5% average annual growth in world oil consumption--somewhat more rapid than in 1977 but still only about half the long-term historical rate. This forecast is based upon GNP projections for the United States (4%), Western Europe (2.5%), and Japan (5%); it assumes that oil consumption grows at about the same rate, despite government rhetoric about conservation and despite attempts to substitute alternate energy sources. It also includes 0.3 MMB/D over the 1977-1982 period for U.S. stockpiling, reflected in the "Other" category which is projected to grow at 3% p.a. over the period.

By late 1980 or early 1981, the world economy is likely to experience a recession. Its magnitude is not expected to be as severe as that of the 1974-75 downturn; it will, however, be of sufficient depth to impact world oil consumption. Although the timing of the European and Japanese downturns might differ from that in the United States, we have assumed a concurrence of recession throughout the world. As a result, we have projected a decline of around 3.5% in

world oil consumption in 1981. After the downturn, we expect strong economic recovery. World oil consumption is projected to grow at 4% in 1982, at 3.5% in 1983, and at 3% in 1984 and 1985. The importance of the projected recession and recovery lies in its relation to the non-cyclical growth of supply. That is, large excess supplies in the oil market can be expected by late 1980 or early 1981, representing a combination of declining demand and increasing supply--a situation likely to persist for some time and one which represents a significantly different perception of the world oil market than is prevalent today.

Non-OPEC Oil Supplies

Table II
Non-OPEC Supplies*
(MMB/D)

	1975 ----actual--	1976	1977 est.	1978	1979	1980	1981	1982
				-----forecast-----				
W. Europe	.6	.9	1.8	2.5	3.1	4.1	4.7	5.0
Mexico	.8	.9	1.1	1.4	1.7	2.0	2.1	2.2
Alaska	-	-	.2	1.1	1.4	1.7	1.8	2.0
U.S. (lower 48)	10.5	10.4	10.4	10.4	10.5	10.6	10.8	11.0
Canada	1.9	1.8	1.8	1.8	1.8	1.4	1.9	1.9
Rest of World**	3.4	3.6	4.0	4.2	4.4	4.8	5.1	5.3
	17.2	17.6	19.3	21.4	22.9	24.6	26.4	27.4
Net Sino-Soviet Exports***	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.6
Total	18.2	18.7	20.5	22.6	24.2	26.0	27.9	29.0

*Includes crude oil, condensate, natural gas liquids, and refining processing gains.

**See Appendix for Rest of the World breakdown.

***Net Sino-Soviet exports are gross exports to the West minus imports from the West, largely by Eastern Europe.

Table II shows our projection of non-OPEC oil supplies around the world out to 1982.² Two key assumptions underlie these projections. First, we are assuming that oil production in the lower 48 United States will not continue to decline, but will increase marginally after 1978. In 1977, U.S. oil production in the lower 48 appears to have stabilized, with crude oil at 8.1 MMB/D, natural gas liquids at 1.7 MMB/D, and refinery processing gains at 0.6 MMB/D. We are assuming that continued increases in U.S. exploratory activity will keep lower 48 production stable at 10.4 MMB/D in 1978, and that gradual price decontrol will move this production up to 11.0 MMB/D by 1982. The second key assumption is the continued growth of Sino-Soviet oil exports to the West. This is in sharp contrast to the well-publicized CIA report cited by President Carter at the time of his energy proposals to the American public last April. The CIA suggested in that study that the Soviet Union would turn from a net exporter of one MMB/D at present to a net importer of two MMB/D by 1985. Since the CIA study was issued, there have been a number of critical reviews which found serious fault with the CIA's assumptions. In particular, there is no firm reason to believe that Soviet production will decline significantly. But even if it were to fall off, the Soviets' need for hard Western currencies suggests that they would continue to export oil and substitute coal and nuclear fuel for domestic energy needs. Mainland China is also expected to increase oil exports from a present rate of around 200,000 barrels per day to some 500,000 barrels per day by 1982.

Table II shows an estimated 19.3 MMB/D of non-OPEC oil production in the noncommunist world in 1977, up from 17.6 MMB/D last year. In addition, another 1.2 MMB/D of estimated net Sino-Soviet exports to the West increased the total 1977 oil supplies outside of OPEC to 20.5 MMB/D.³

2. It is almost impossible to forecast oil supplies with any precision beyond a four- or five-year time frame. For further explanation, see page four.
3. In 1977, we estimate that the U.S.S.R. will export around 1.3 MMB/D to the West and China another 0.2 MMB/D. At the same time, the Soviet bloc Eastern European countries will import an estimated 0.3 MMB/D.

For 1978, we expect non-OPEC oil sources to supply 22.6 MMB/D, with most of the increased oil production coming from Alaska and the North Sea. Increased Mexican and Sino-Soviet oil will raise total non-OPEC supplies to 26.5 MMB/D by 1980 and to over 29 MMB/D by 1982.⁴ Part of these new oil supplies will come from smaller but still significant increases in such areas as Brazil, Argentina, and the non-OPEC countries in the Mideast, Africa, and Asia. The average annual growth rate of non-OPEC supplies between 1977 and 1982 is estimated at over 9%, while the growth in world demand is forecast at around 2.5% per year. (Even disregarding our projected 1981 recession, the demand growth number would not exceed 3% per year.)

Estimating oil production beyond 1982 is only guessing at what might be discovered in still unexplored regions. There are many significant potential pools of new oil known to geologists. These include offshore Argentina, Vietnam, the U.S. east coast and Alaska. (Significantly for the U.S. picture, the east coast exploratory drilling is due to start early in 1978.) Policy-makers cannot count on new reserves coming from these areas, but neither can they discount them. Yet longer-term (more than five-year) projections are made, and they normally forecast a decline in reserves. A forecast of declining non-OPEC world oil supplies by 1985 is only a projection that existing reserves will gradually deplete over time; it is also an assumption that no significant reserve additions will be made during that time. Private oil companies sometimes project declining reserves more than five years out, but when they do, they use the forecasts as the basis for budgeting funds for exploration. And they confidently assume that the exploration will lead to new discoveries that will make the original forecasts obsolete. When governments make such projections of declining reserves, they tend to draw doomsday conclusions from them. The latest scare is only one of many during this century. In 1914, 1926, 1939, and 1949, the U.S. Government became seriously concerned over impending oil shortages; each time, though, their fears were premature. At some future time, of course, oil will be a relatively scarcer commodity than it is today, but that day won't come as soon as many think.

Table III
Non-OPEC Supplies in 1985
(MMB/D)

	<u>Low Finding Rate</u>	<u>High Finding Rate</u>
W. Europe	5.0	6.0
Mexico	2.0	3.0
Alaska	2.0	2.5
U.S. (lower 48)	9.5	12.0
Canada	1.5	2.5
Rest of World	4.5	7.0
Sino-Soviet	.5	2.0
	25.0	35.0

To reach some outside limits on possible non-OPEC production levels in 1985, we have projected two scenarios in Table III. In the case of a Low Finding Rate of new sources, non-OPEC production in 1985 would drop from an estimated 29 MMB/D in 1982 to 25 MMB/D by 1985. In the case of a High Finding Rate, as much as 35 MMB/D might be expected. There is absolutely no way at this time to tell which direction the production levels will turn. It depends upon worldwide drilling activity between now and 1980-1981, and upon the success of those exploration efforts. The one message which Table III does have for government policymakers is that an operating environment conducive to more exploration is a crucial element of an effective energy policy.

OPEC Oil Supplies

OPEC oil production reached its peak in 1973 at close to 31 MMB/D. OPEC maintained roughly this rate in 1974, but production declined substantially in 1975 with world recession. In 1976

4. By 1982, the Soviet Union is likely to increase its oil exports to the West to around 1.7 MMB/D, and the Chinese to 0.5 MMB/D, while Eastern Europe will be importing around 0.6 MMB/D.

OPEC oil production rebounded to 30.5 MMB/D, and in 1977 is expected to average around 30 MMB/D. This will include a sizeable inventory buildup toward the end of the year, partly due to normal seasonal patterns and partly due to hedge buying in anticipation of an OPEC price rise in January 1978.

Table IV shows that in 1973 and 1974 OPEC production reached two-thirds of world consumption. In 1975, world oil consumption declined as a result of recession. OPEC production declined even more and the OPEC proportion of total world demand fell to less than 60%. With economic recovery in 1976 and 1977, world demand and OPEC production have expanded at about the same rate, and the OPEC proportion has remained around 60%.

Table IV
OPEC Supplies

	<u>Production</u> (MMB/D)	<u>Proportion of World Consumption*</u> (%)
1970	22.1	56.4
'71	25.1	60.8
'72	27.1	61.5
'73	31.0	65.5
'74	30.7	66.9
'75	27.1	59.4
'76	30.5	63.0
'77 est.	30.0	60.1
forecast:		
'78	28.6	55.9
'79	28.8	54.3
'80	28.0	51.4
'81	24.8	46.8
'82	26.0	47.2
.	.	.
.	.	.
'85	25.5-35.5	42.2-58.7

*Excludes Communist countries. Historical data from American Petroleum Institute; projections by Irving Trust Company.

Our forecast of future OPEC production is derived from the difference between projected world consumption and projected non-OPEC production. Note the dramatic decline projected in Table IV for OPEC production in 1981 and 1982. This results from the dual assumption of economic recession and increased non-OPEC supplies at that time. We are, therefore, projecting that OPEC will be supplying less than half of world consumption in 1981 and 1982, down sharply from the two-thirds they supplied in 1973 and 1974. (Even without the forecast of world recession in 1981, it is likely that OPEC will be supplying only around one-half of world demand in the 1980-82 period.)

The outlook for OPEC production to 1985 is contingent upon the Finding Rate assumed for non-OPEC supplies. With a High Finding Rate, OPEC production would continue to decline over the 1982-85 period, and would only satisfy around 40% of world consumption in 1985. With a Low Finding Rate, on the other hand, OPEC production could increase to over 35 MMB/D by 1985, and OPEC would then supply almost 60% of world demand. That difference is crucial to any assessment of the future viability of OPEC.

It is impossible, however, to project which alternative is more likely by 1985, simply because new oil reservoirs have not been identified as yet through exploratory drilling. Through 1982 our projections of non-OPEC oil supplies are based upon assumptions concerning the degree of exploitation of reasonably well-known pools of oil. While these assumptions could be challenged, there is some basis for the projections in what we know today. For 1985, we have no

basis for a projection of either tighter non-OPEC supplies or more abundant ones, and the outer limits of the 1985 projection in Table IV are simply too far apart to judge the course of prices by that time. For 1980-82, however, where the supply projections are based on the development of known oil reservoirs, we can make the reasonable judgement that supplies will be abundant and that oil prices (in real terms) will likely fall between 1978 and 1982.

Table V
Distribution of OPEC Production
Actual and Projected

	actual		estimated		forecast 1980-82 (3-year average)			
	1976		1977		Case A		Case B	
	(MMB/D)	(%)	(MMB/D)	(%)	(MMB/D)	(%)	(MMB/D)	(%)
Large Population Group:								
Algeria	1.0	3.2	1.1	3.7	1.1	4.2	1.1	4.2
Ecuador	.2	0.6	.2	.7	.2	.8	.2	.8
Gabon	.2	0.7	.2	.7	.2	.8	.2	.8
Indonesia	1.5	4.9	1.7	5.7	2.0	7.6	2.0	7.6
Iran	5.9	19.3	5.5	18.3	6.5	24.7	3.0	11.4
Iraq	2.3	7.5	2.4	8.0	4.0	15.2	3.5	13.3
Nigeria	2.1	6.8	2.2	7.3	2.5	9.5	2.0	7.6
Venezuela	2.3	7.5	2.2	7.3	2.5	9.5	2.0	7.6
Total	15.5	50.5%	15.5	51.7%	19.0	72.2%	14.0	53.2%
Small Population Group:								
Libya	1.9	6.3	2.1	7.0	1.6	6.1	1.9	7.2
Kuwait	2.2	7.1	1.8	6.0	1.5	5.7	1.9	7.2
U.A.E. & Qatar	2.4	8.0	2.4	8.0	1.6	6.1	2.1	8.0
Saudi Arabia	8.6	28.1	8.2	27.3	2.6	9.9	6.4	24.3
Total	15.1	49.5%	14.5	48.3%	7.3	27.8%	12.3	46.7%
Total OPEC:	30.6	100%	30.0	100%	26.3	100%	26.3	100%

Table V shows the distribution of actual OPEC production in 1976 and estimated production in 1977. Note that in both years total OPEC production was split about evenly between the large and small population groups. As total requirements for OPEC oil begin to decline over the next five years, however, OPEC will be faced with a fundamental challenge to its internal cohesion. Some member countries will have to cut back oil production in the face of rising import costs, thereby jeopardizing development programs already in progress. The way for any one OPEC country to maintain its oil exports in the face of declining demand, however, would be cut to prices, and the incentive to do so will grow as excess capacity builds over the next few years. To prevent this, OPEC would either have to set up a centralized allocation system or agree to lower prices for all member countries in an attempt to stimulate overall demand for OPEC oil. The adoption of either alternative will further erode OPEC unity and will mean increased bargaining power for consuming countries.

Table V shows the average production rate for OPEC oil projected over the three years 1980-82, thereby smoothing out the effect of the forecast recession. The average production rate for OPEC over this period is projected at 26.3 MMB/D. Case A assumes that the small population OPEC countries absorb the major portion of the decline in the need for OPEC oil, diminishing their proportion of total OPEC production to around 28%. This would leave 72% to the large population OPEC countries. The problem with this scenario, however, is that an average Saudi Arabian production rate of less than 3 MMB/D for the three-year period 1980-82 would probably be too low for even the wealthy Saudi princes. Case A permits Iran and Iraq to maintain, or even to increase, their market shares, and thus to continue to pursue their economic and political objectives, at the possible expense of Saudi Arabia. Case B, on the other hand, assumes that the current 50-50 split between the large and small population OPEC members is maintained. As a result, Saudi Arabia would be able to sustain an average production rate of more than 6 MMB/D

over the three-year period; it would be able to hold its market share and maintain its development objectives. In this case, however, it is assumed that Iran would cut back its oil production to 3 MMB/D, a production rate which would seriously impair the Shah's development objectives. While Iraq might absorb some of the cutback, its ability and desire to do so seems severely limited.

The two cases outlined in Table V are clearly untenable polar extremes, designed to suggest the inherent friction likely to arise within OPEC. U.S. foreign policy should recognize the possibility that this potential instability within OPEC could lead to political repercussions in the Mideast. Present foreign policy perceptions concerning the Mideast are clouded by the official forecast of increasing world energy scarcities and thus tighter OPEC control over world oil supplies in the mid 1980s.

United States Policy Options

Table VI
U.S. Oil Supply Demand
MMB/D

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1980</u>	<u>1982</u>	<u>1985</u>
Domestic Demand:						
Consumption	17.4	18.4	19.1	20.2	21.4	23.5
Strategic Stockpile	-	.3	.3	.3	.3	-
Total	17.4	18.7	19.4	20.5	21.7	23.5
Domestic Supply	10.1	10.6	11.5	12.3	13.0	11.5-14.5*
Imports Required	7.3	8.1**	7.9	8.2	8.7	9.0-12.0*

*The range of domestic supply projected for 1985 depends upon the Low versus High Finding Rate cases outlined in Table III, resulting in the range of projected oil imports for 1985.

**Actual 1977 imports are close to 8.8 MMB/D, representing a substantial buildup of commercial inventories.

Table VI shows that U.S. imports will rise to at least 9 MMB/D by 1985 and could be as high as 12 MMB/D. This is neither as low as the Administration's goal of 6 MMB/D nor as high as the 16 MMB/D projected by some Government studies in the absence of an official energy policy. U.S. demand is assumed to grow at 4% p.a. over the 1977-85 period. With Alaskan oil supplies building up from an average of 0.2 MMB/D in 1977 to an expected 1.7 MMB/D by 1980, imports can be held at a fairly constant rate of around 8.0 MMB/D through that time. By 1985, however, we expect U.S. demand for oil to outstrip increases in domestic production, even under the High Finding Rate assumption. As a result, U.S. oil imports are likely to rise after 1981, putting further stress on the balance of payments.

Nevertheless, the terms of these oil imports after 1981 could be quite different than at present. First, if OPEC is supplying less than half of the world's oil demand by 1982, versus 60% today, then the cartel may have a more difficult time in maintaining its internal cohesion and could become more susceptible to arm's length bargaining over crude oil prices. Second, if non-OPEC foreign sources are providing 30% of world demand by 1982, versus less than 20% today, then a greater number of oil import sources will be available than at the present time.

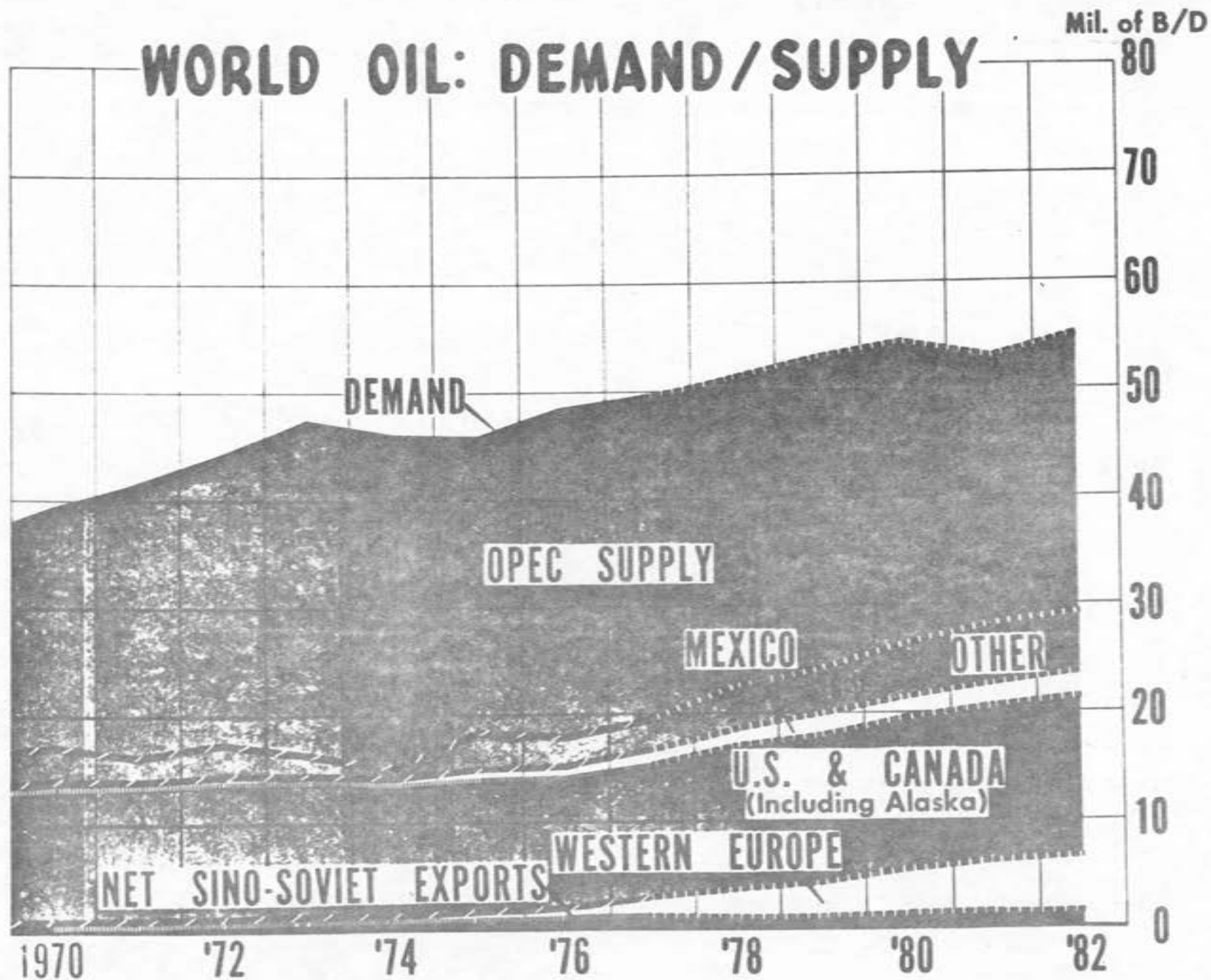
But to take advantage of these changes, serious consideration should be given to altering the commercial mechanism by which oil is imported into the United States. In other words, a market exchange system for oil--possibly regulated by representatives of both consuming and producing nations--would be a more useful approach than the current OPEC practice of indexing world oil prices to world inflation rates. Over the next few years, as OPEC's alternatives become more limited, this option might become more acceptable to them. U.S. international oil policy should focus on setting the stage for a new approach to oil pricing. It should also continue a dialogue with the oil-exporting nations that might lead to OPEC's recognition of the mutual gains a neutral market pricing system could provide.

Arnold E. Safer

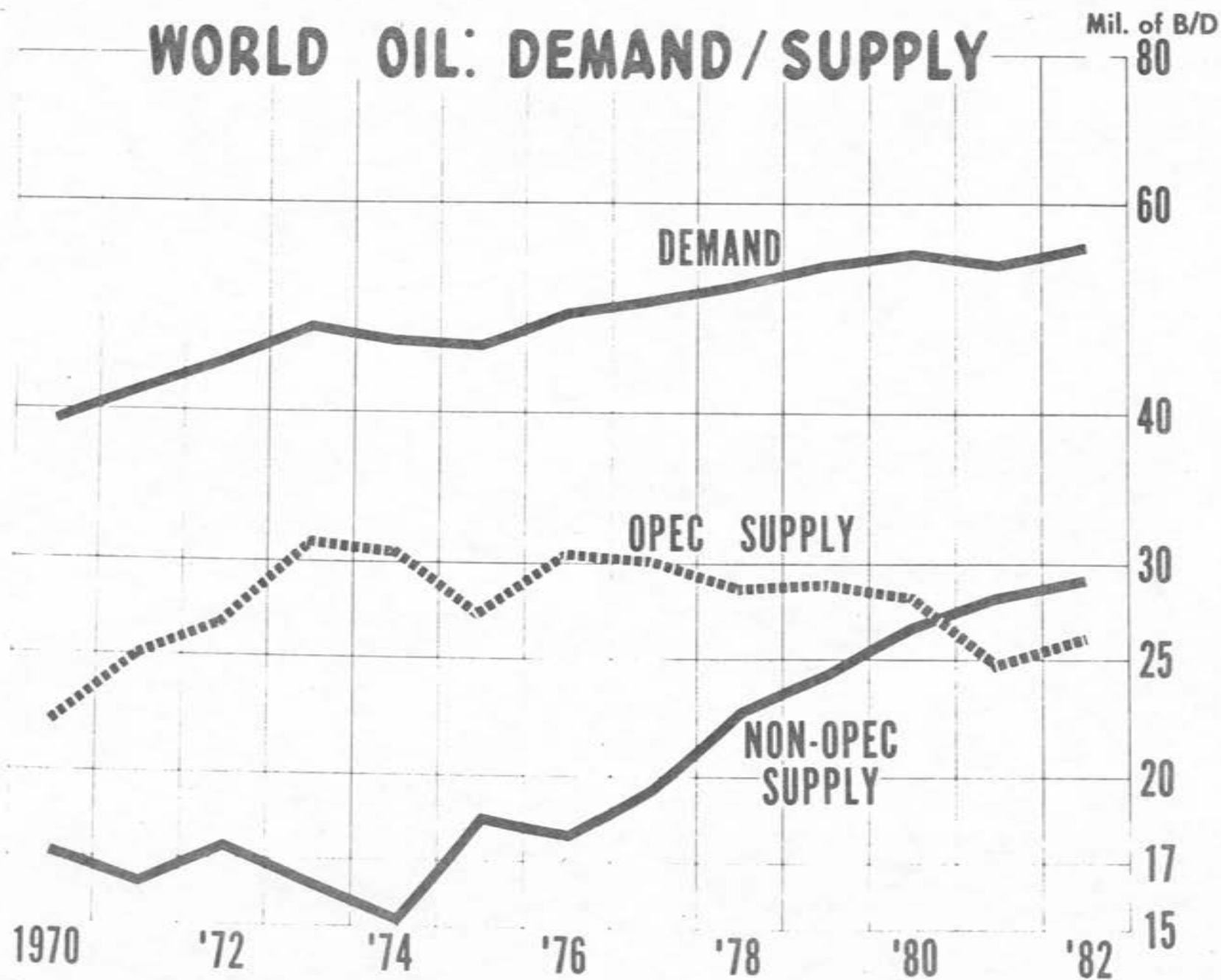
APPENDIX

Breakdown of Rest of World category of non-OPEC supplies in Table II.

	<u>Oil Production</u> (MB/D)	
	<u>Actual</u> 1976	<u>Forecast</u> 1982
<u>Total</u>	3,622	5,300
<u>Latin America</u>	1,267	2,350
Trinidad	395	500
Brazil	172	600
Colombia	152	150
Argentina	395	700
Other	153	400
<u>Africa</u>	571	800
Egypt	331	500
Other	240	300
<u>Non-OPEC Mideast</u>	600	700
Syria	184	200
Turkey	50	50
Oman	366	450
<u>Asia & Oceania</u>	1,184	1,450
India	175	300
Brunei	221	350
Malaysia	165	250
Other Asia	196	200
Australia & New Zealand	427	350



WORLD OIL: DEMAND / SUPPLY



SOURCE: HISTORICAL DATA BY AMERICAN PETROLEUM INSTITUTE. PROJECTIONS BY IRVING TRUST COMPANY.

NEW OIL SOURCES 1977-1982

MMB/D

U. S.

LOWER '48
ALASKA

.6
1.8

CANADA

.1

W. EUROPE

3.2

MEXICO

1.1

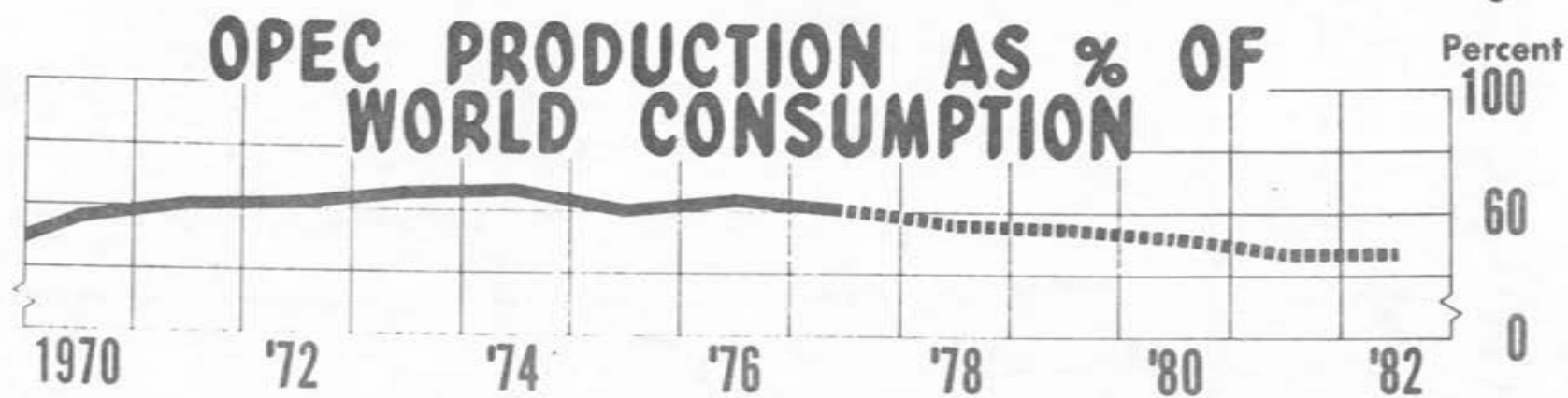
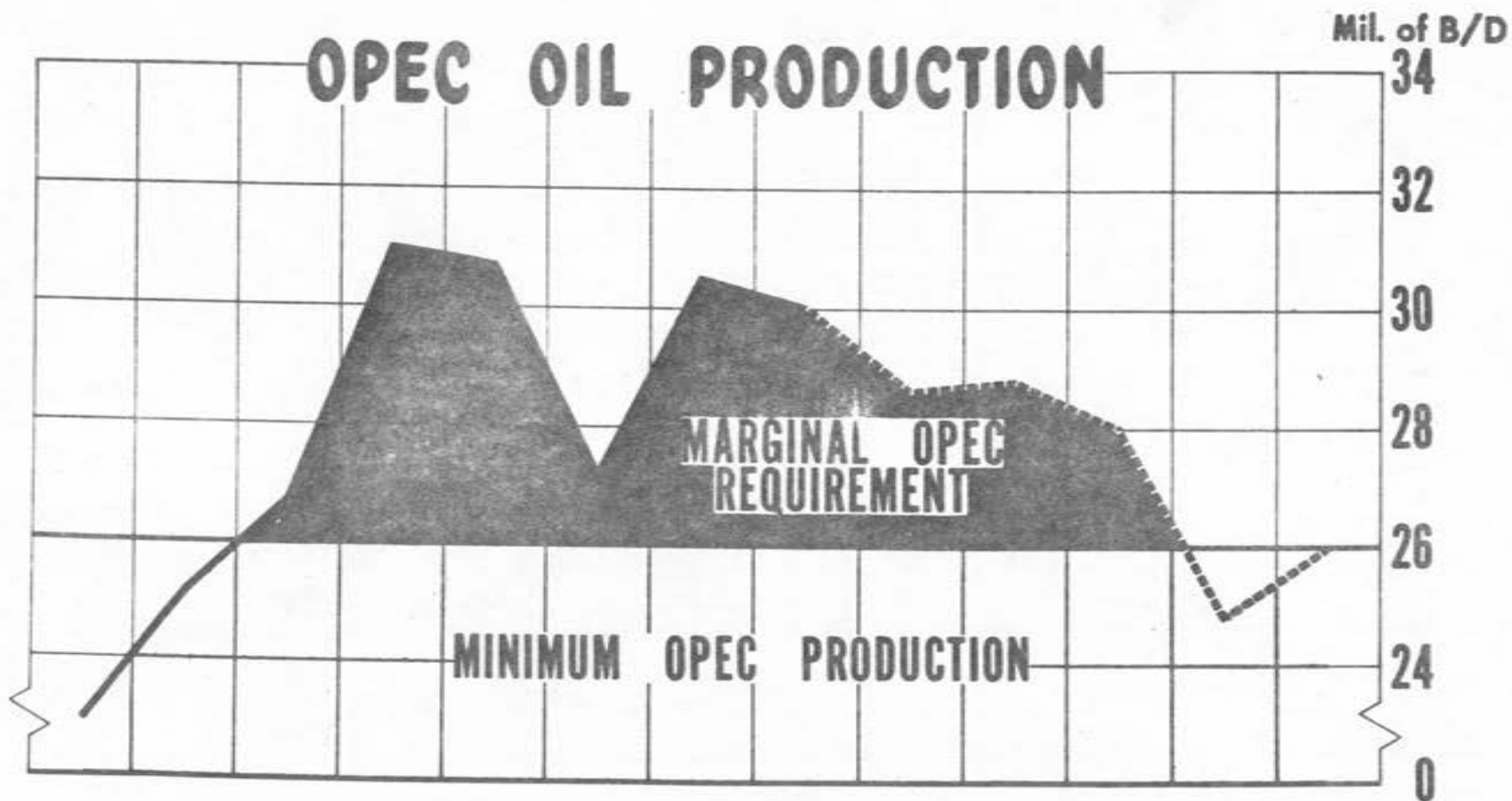
SINO-SOVIET

.4

REST OF WORLD

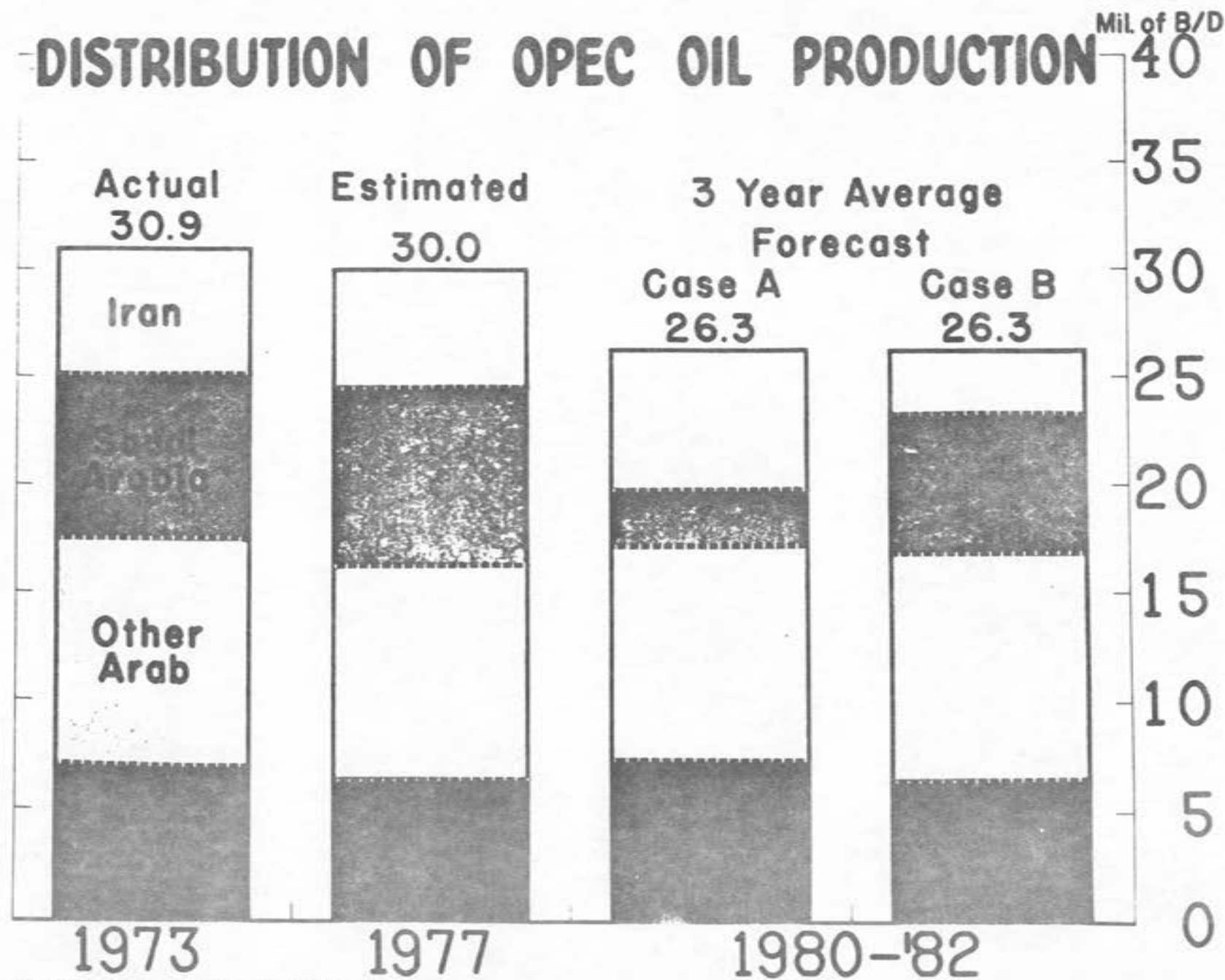
1.3

8.5

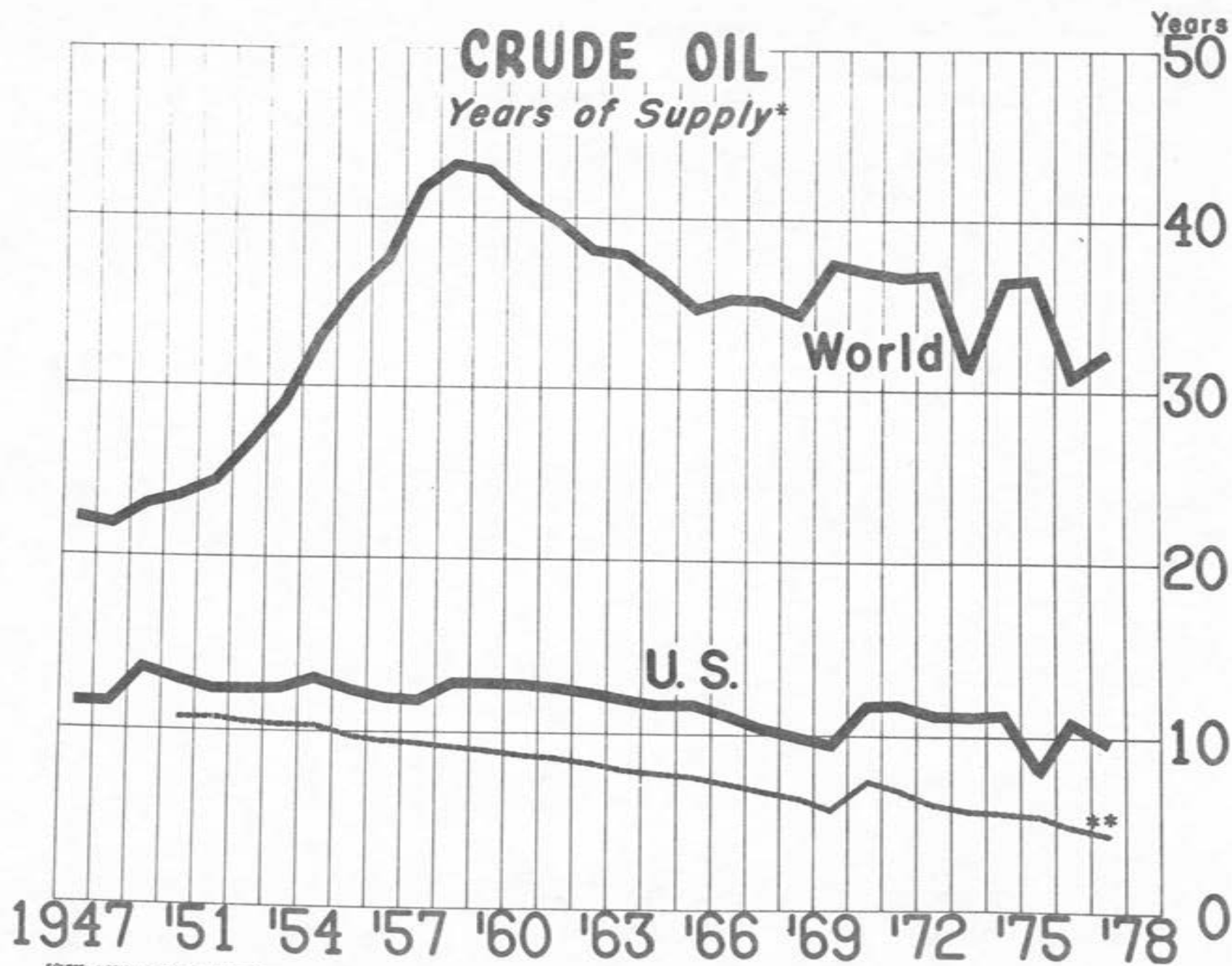


SOURCE: U.S. DEPT. OF INTERIOR, AMERICAN PETROLEUM INSTITUTE.

DISTRIBUTION OF OPEC OIL PRODUCTION



SOURCE: HISTORICAL DATA BY AMERICAN PETROLEUM INSTITUTE; PROJECTIONS BY IRVING TRUST CO.



SOURCE: AMERICAN PETROLEUM INSTITUTE. *AT ANNUAL PRODUCTION RATES **AT ANNUAL CONSUMPTION RATES.

U. S. OIL SUPPLY/DEMAND
MMB/D

	<u>1977</u>	<u>1982</u>
CONSUMPTION	18.4	21.4
STR. STOCKS	.3	.3
	<u>18.7</u>	<u>21.7</u>
DOMESTIC SUPPLY	10.6	13.0
IMPORTS	8.8	8.7
INVENTORY CHANGE	<u>+ .7</u>	<u>—</u>

CONCLUSIONS

- 1 - ABUNDANCE OF WORLD OIL
SUPPLIES THROUGH 1982
- 2 - OIL PRICES (ADJUSTED FOR
INFLATION) WILL FALL
- 3 - OPEC COHESION WILL BE
STRAINED
- 4 - U. S. WILL REMAIN HEAVILY
DEPENDENT ON FOREIGN OIL



Economic Commentary

Economic Research
& Planning Division

October 17, 1977

THE ECONOMICS OF U.S. OIL SUPPLIES

The Washington perspective on energy is focusing increasingly on the proposition that the United States will soon run out of oil. To quote one former Government official, "The central reality is that the end of our petroleum is in sight and, in all likelihood, the biggest oil fields have already been found. Higher prices to producers (through decontrol) will result, at best, in only marginal increases in output."* But this point of view is open to serious challenge, on both geologic and economic grounds.

The Oil Is There

Even the most conservative geological surveys rebut the thesis that the United States will physically run out of oil in the near future. At the minimum, potential new U.S. oil reserves have been estimated at 120-150 billion barrels--at current consumption rates, 17 to 20 years of future supply. The potential is there. What is needed to tap it is an energy policy that encourages the search for and development of new reserves.

Unfortunately, in the United States, drilling for new oil hasn't always been encouraged. U.S. oil production has been declining since 1971 primarily because the large reserves of Alaskan oil discovered in 1968 could not be produced until a transportation system was built. Technically, a pipeline could have been put into operation within two or three years after the reserves were identified. Environmental disputes, among other things, however, delayed the project. Finally now, some six years later, Alaskan oil is beginning to flow. By the middle of next year, U.S. oil production may well be back to the level achieved in 1971. Similarly, environmental considerations deferred the planned exploratory drilling on the outer U.S. continental shelf, a project which still faces an uncertain future.

Delays such as these in bringing on new energy supplies, coupled with Government-mandated use of oil (particularly low-sulfur oil) in lieu of other fuels, have brought about substantial increases in U.S. oil imports. For a time, the historical oil import quota system kept some semblance of order in international markets. By early 1973, though, the old quota system had become so full of special exemptions that it was eliminated, and the way was paved for OPEC dominance of the world's oil markets.

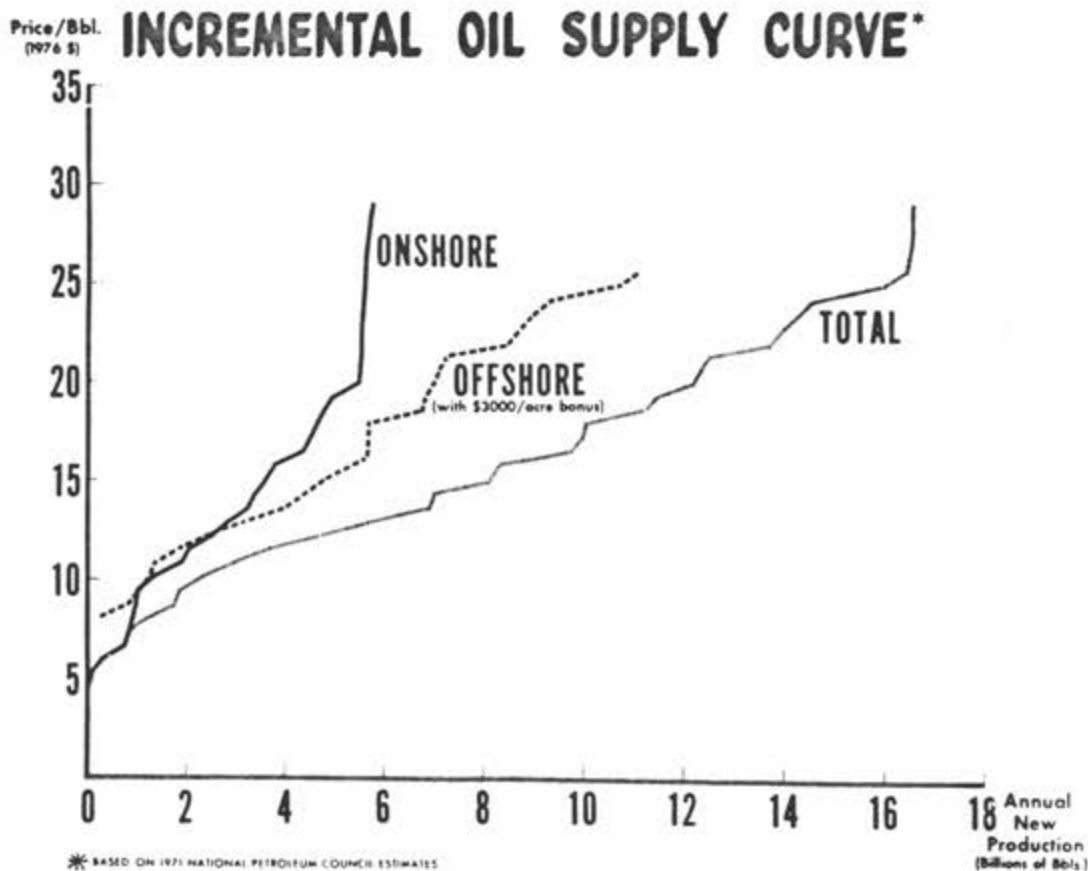
U.S. policy is now faced with a situation where past regulatory excesses can only be corrected gradually. We cannot avoid paying OPEC's monopoly prices, at least temporarily, until we can find and develop the significant new energy sources geologists tell us are out there.

Higher Prices Will Increase Production

There has been substantial debate over the past few years concerning the response of oil output to increased prices. Although all supply elasticity studies are subject to many technical and

*Stewart L. Udall, New York Times, March 30, 1977, Pg. 27. Mr. Udall was Secretary of the Interior from 1961-1969, and is now a Washington lawyer.

economic uncertainties, there is sufficient evidence to suggest that higher oil prices will eventually yield major increases in U.S. oil production. The chart below shows a reasonable approximation to a long-run U.S. oil supply curve. It is based on a technical assessment of each major producing area in the United States and is adapted from studies done in 1971 by the National Petroleum Council.* The projected production levels along the horizontal axis consist of first-year output derived from newly discovered reserves, assumed to be produced over a 15-year period. All secondary and tertiary costs and potential production are excluded. A 10% cost of capital is assumed. There is no attempt to account for the timing of the investments needed to create the new oil reserves nor to delineate when the production from the reserves would come on stream. It does provide, however, a reasonable estimate of potential production rates which could be attained at various prices.



The principal point of this chart is that higher oil prices will induce more oil production from newly discovered oil fields. For example, a price of \$12.50 for well-head crude oil in the United States would eventually bring about an increase of 5.2 billion barrels of annual new production. This is over 14 MMB/D, or 75% of current U.S. oil consumption. Other studies suggest that secondary and tertiary recovery techniques can eventually increase current oil production by 30%-40%, or an additional annual output of 3 MMB/D, provided that the higher prices suggested here can be obtained to justify the extra investment expenditures.

Conclusions

We may, as some contend, run out of oil, but this is not an immediate possibility. Economic studies show that, as of now, U.S. oil production could be significantly increased if prices were permitted to rise to reflect market forces. Geologic studies show that the reserves to be produced are there.

Arnold E. Safer

*Analysis of Regional Incremental Costs of Oil and Gas: Derived from the NPC Oil and Gas Supply Model; National Petroleum Council, Washington, D.C. 1971. We have updated the 1971 figures to account for both inflation and offsetting production gains. Thus, while unit drilling costs have increased 60% since 1971, we believe that only a 40% increase in per barrel production costs and thus in oil prices would be necessary to achieve the desired return on investment.

Oil and the International Economy*

Arnold E. Safer

*Vice President, Economics
The Irving Trust Company*

Shortly after the OPEC oil embargo was imposed and subsequently lifted, dire predictions were made about the huge balance of payments surpluses that would occur in the oil-exporting countries. This article leads to a more sanguine view than was earlier seen, but it raises problems enough. A major underlying problem is the high price of oil, and no matter what patchwork operations are established, that problem will not go away. Energy policy must become an integral part of economic policy, both domestically and internationally. If slower than desired economic growth is the necessary precondition for energy saving in the short run that will help put in place energy-conserving and energy-producing technologies in the future, that course may have to be followed.

THE WORLD HAS NOT really adapted to the increased price of international oil imposed by the cartel of oil-producing nations. The mounting international debt of many developing countries and of some industrialized nations is one important symptom of the disruptive nature of high oil prices. As long as large OPEC surpluses continue, there will be an ever-increasing burden of deficits in the

oil-importing nations which must be financed through the international monetary system. Chronic international payments deficits can set off a vicious devaluation-inflation cycle, which in turn brings about high unemployment or increased protectionism — key symptoms of the failure of the economic adjustment process. Lest the seriousness of this problem be too lightly dismissed, it is important to remember that most economic historians feel that the failure of the international economic and financial system was a principal element in the Great Depression of the 1930s. Measures taken in the 1930s to defend against these deficits emphasized exchange controls and protectionist trade policies which contributed to a sharp contraction in world trade, an end to economic prosperity, and the ultimate rise of a destructive economic nationalism.

The world has learned much about economic cooperation since the 1930s, and economic history shows that many of the aspirations of individual OPEC nations cannot be achieved except at considerable expense to the rest of the world. The strategy of achieving economic development by imposing high oil prices upon the rest of the world contains certain risks to OPEC as well as to the oil-consuming nations, both developed and developing. The world recession of 1974-75 was in large part the result of the oil price shock; the slow recovery of the world's economies may be another. But it is precisely this slow economic recovery, with its limitations on increasing social goals, that may very well cause the gradual erosion of the strength of the cartel itself. It is important for both Western policymakers and the governments of OPEC to understand the nature of this process.

This economic process depends critically upon

See end of text for footnotes.

*Adapted from the author's presentation to the NABE Annual Meeting Oct. 11, 1977

three sets of economic forces. First, the state of the oil market and the resulting pressures on oil prices. Second, the magnitude of the OPEC petrodollar surplus, and the distribution of its corresponding deficit among oil consuming nations, both industrial and developing. Third, the manageability of the system by which these petrodollars are recycled within the context of national economic aspirations and the interdependence of the world economy.

WORLD OIL OUTLOOK

Natural economic forces today may be working toward a gradual reassertion of the market power of the oil consuming nations. A slowing in the growth of world oil demand and the expected rapid increase in non-OPEC oil sources suggest that OPEC production peaked early in 1977 and should gradually decline to 28 MMB/D by 1980.¹ OPEC will be most

valuable to consumer pressures during this period, since a number of the more heavily populated OPEC member nations will have an incentive to expand oil production at a time when world demand for total OPEC oil will be gradually declining. They can only expand output at the expense of the more sparsely populated OPEC countries. If Saudi Arabia alone reduces output to offset increased production by the populous OPEC nations, it could be reduced to production levels by 1980 which even it might find intolerably low. As another alternative, if Saudi Arabian production in 1980 were held near current levels, other OPEC members would be forced to cut oil production below levels which would permit the planned implementation of economic development programs already in progress.

See Table 1 for a description of possible 1980 OPEC supply scenarios. Also, see "World Oil: Challenges and Opportunities," *View From One Wall*

Table 1
World Petroleum Situation: [1]
Forecast to 1980
(millions of barrels per day)

	1975 (actual)	1976 (estimate)	1980 (forecast)	
Consumption	46.0	46.9	53.0	
Inventory Changes	-.9	+.7	—	
Demand	45.1	47.6	53.0 [2]	
Annual Growth Rate	-2.9%	5.5%	2.7% [2]	
Supply				
Non-OPEC [3]	18.0	18.0	25.0	
OPEC	27.1	29.6	27.5	
OPEC Sources				
Heavily Populated [4]	14.4	14.9	Case A [6] 14.7	Case B [7] 18.8
Sparsely Populated [5]	12.7	14.7	12.8	8.7
Total	27.1	29.6	27.5	27.5
Saudi Arabia	7.0	8.5	7.0	3.0

1. Excludes Sino-Soviet bloc.

2. Average annual rate over the four year period 1976-80. Over the five year period 1975-80, the average annual rate of growth in oil demand is projected at 3.3 percent.

3. Includes Sino-Soviet exports to the non-Communist world of one million barrels per day in 1976, rising to 1.4 million barrels per day by 1980.

4. Includes Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Nigeria, and Venezuela.

5. Includes Libya, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

6. Case A assumes that each OPEC member produces approximately in proportion to the 1975 allocations.

7. Case B assumes maximum production by heavily populated OPEC members, with sparsely populated OPEC members absorbing the production declines between 1977 and 1980.

Street, Irving Trust Company, New York, N.Y., Dec. 20, 1976.

U.S. international oil policy should recognize the likelihood of this natural friction within OPEC. The period ahead offers the opportunity to limit the cartel's power over the world oil market and to reach a more healthy accommodation with the legitimate aspirations of its member governments.

In a prior study we argued that over the 1975-80 period OPEC's minimum production level required to sustain its member countries' respective development objectives was in the 24-25 MMB/D range.² This estimate was based on a detailed assessment of each country's oil-producing capacity in comparison with its foreign exchange needs to import Western goods and services. Due to world inflation, we would increase that estimate today to around 26 MMB/D. If our projection of a 28 MMB/D rate for 1980 OPEC production is at all realistic, the world need from OPEC only around 2 MMB/D more than its minimum production levels. This marginal OPEC requirement in 1980 would represent only around 4% of world oil consumption, down from almost 15 percent in 1973-74. International energy policy should recognize that this developing trend will create a situation where a modest program of energy conservation could be highly successful in influencing OPEC's pricing practices. Reducing world oil demand by 2 MMB/D in 1980 seems a target for an effective international energy conservation policy and would make it difficult for OPEC to determine oil prices unilaterally.

Continuing dialogue among representatives of the OECD countries, OPEC, and the non-oil developing countries is necessary to discuss the issues surrounding the price of international oil. For example, it would be useful to establish the fact that some kind of market exchange system would be a better mechanism for determining the price of oil than an international treaty based upon political perceptions of a "fair" price.³ The replacement cost of synthetic energy sources is not a realistic basis for oil pricing; nor is the indexing of oil prices to world inflation a useful departure point for international oil negotiations. Both pricing approaches make little economic sense in the long run and would simply add to the misallocation of the world's resources, both physical and financial. A market exchange system for oil, possibly regulated by representatives of both consuming and producing nations, would be a more useful approach. And it is over the next few years, when the consuming nations may well be able to exercise significant market influence over the OPEC states, that this approach might be successfully applied.

PETRODOLLARS

The second potential source of economic instability derives from the issue of petrodollars — of a very large potential overhang of OPEC-owned financial claims on the consuming countries.

Prior to 1974, the OPEC financial surplus came to around \$15 billion, largely concentrated in Saudi Arabia and Kuwait. By the end of 1977, we estimate this figure will have risen to around \$175 billion, with Saudi Arabia alone accounting for roughly 60 percent of this total. By 1980, this petrodollar surplus will likely be over \$200 billion (See Table 2).

In effect, virtually the entire surplus will be concentrated in the small population OPEC members, principally the Arab states of the Persian Gulf. At the same time, some of the large population OPEC members could very likely go into current account deficit over the next few years.

The petrodollar issue has now assumed a different dimension than had been initially perceived. Two years ago, the fears of the financial community were focused both on the magnitude of the surplus petrodollars likely to build up and on the mechanism by which they would be recycled. The first problem has now receded because it has been recognized that the cumulative OPEC surplus will not build into the completely unmanageable trillion dollar range by 1980, but will likely be more in the neighborhood of \$200 billion. Although some observers have suggested that this smaller sum can be managed without excessive strain on the private financial system, even that proposition is now open to question. The stronger industrialized countries have generally been able to maintain a reasonable balance of trade among themselves. Thus the annual OPEC surplus has become, on balance, a burden for the less competitive industrial countries, for the developing nations, and increasingly for the communist bloc. The continuing ability of these countries to finance their trade deficits has now become the chief concern of the financial community. In other words, the problems now center largely around the world distribution of the balance of payments deficits, and the methods by which these are being financed.

Table 2 translates our forecast of OPEC oil production into OPEC oil revenues. We have assumed an increase of 8% in oil prices in 1977 and a 5 percent per year growth thereafter to 1980. As a result of the expected decline in OPEC volume, therefore, OPEC oil revenues are projected to grow only marginally through the remainder of the decade. With a continued rise in merchandise and service imports, albeit not as rapidly as had been expected, OPEC is likely to experience a decrease in its annual current account surplus through 1980. The cumulative fi-

Table 2
OPEC Current Account and Financial Surplus

	1974	1975	1976	1977	1978	1979	1980
	(actual)		(est.)		(forecast)		
Oil Production (bil. bbls.)	11.1	9.9	10.8	10.7	10.4	10.2	10.0
Domestic Use (bil. bbls.)	.5	.6	.6	.7	.8	.9	1.0
Oil Exports (bil. bbls.)	10.6	9.3	10.2	10.0	9.6	9.3	9.0
Oil Prices (\$ bbl.) [1]	9.45	10.20	11.15	12.04	12.64	13.27	13.93
Value of Oil Exports (\$ bil.)	100.1	94.9	113.7	120.0	121.3	123.4	125.4
Other Exports (\$ bil.)	11.0	12.0	13.0	15.0	18.0	21.0	23.0
Total Exports (\$ bil.) [2]	111	107	127	135	139	144	148
Merch. Imports (\$ bil.)	36	59	70	82	90	100	110
Service Imports (\$ bil.) [3]	15	23	30	36	40	41	42
Investment Income (\$ bil.)	4	6	7	9	11	15	18
Current Account Balance (\$ bil.)	64	31	34	26	20	18	14
Cumulative Financial Surplus (\$ bil.) [4]	80	111	145	175	191	199	213

1. Government Take, Average OPEC
2. Rounded to nearest billion
3. Including Transfers
4. Year-End, 1973; \$15 billion

financial surplus, therefore, is expected to peak at around \$200 billion in the 1979-80 period.

By the end of 1977, the cumulative outstanding non-oil developing country debt is estimated at \$250 billion, with approximately \$90 billion owed to commercial banks. For the past three years, this group of countries has required over \$40 billion annually in external financing, with roughly \$30 billion stemming from current account deficits. This annual flow of resources to the developing nations totals about 1% of the non-communist world's GNP. While in and of itself this figure may not be excessive, there has been a concentration of this flow in the form of increased loans from private Western banks to the developing country debt. While we do not believe that this represents an inordinate level of risk at present, a further expansion of private sector lending to the developing countries could pose problems for the future.

Thus petrodollar recycling is, in fact, occurring. The question is how vulnerable is this process to such unforeseeable shocks as political upheavals, international currency problems, and protectionist trade policies. In effect, OPEC is forcing the Western nations, both governments and private institutions, to co-sign the check on the flow of their surplus to the deficit countries.

IS THE SYSTEM MANAGEABLE?

The present approach to international economic policy runs along two complementary lines. First, a continuation of recycling but increasingly shifting the burden to governments and international financial institutions and away from increasingly reluctant private sources. The advantage of governmental lending is the greater leverage which the governmental body has in imposing constraints upon the domestic economic policies of the borrower. Essentially, this means an insistence upon keeping down the growth of domestic demand, which in many LDC's can mean severe limits upon their aspirations for economic development. This approach has often been accompanied by sharp declines in the value of the borrowing nation's currency, as investors become concerned over the country's economic prospects and as the borrowing country's government seeks to promote exports and restrain imports. The result is often an even more depressed economy with consumers unable to spend and business unwilling to invest. The resulting improvement in the balance of payments position may ultimately bring about renewed growth, provided that the world economy as a whole generates sufficient growth to restimulate demand for the borrowing country's exports.

Enter the second element of international economic policy now being pursued by the new Administration. The proposition is that the surplus industrial countries (Japan, and West Germany) should further stimulate their economies with the objective of creating balance of payments deficits. Easier fiscal and monetary policies in the surplus countries will lead to an increased level of imports, and a part of these increased imports will likely be exports from the deficit countries, either directly or indirectly. For example, as the U.S. stimulates its domestic economy it will buy more commodities directly from the developing countries as well as more consumer goods from Japan. Japan, at the same time, will increase its imports of raw materials from the LDC's, thereby generating a strong second order effect upon exports of the deficit countries.

This two-pronged approach of restraint in the deficit countries and stimulus in the surplus countries may help to gradually restore a measure of equilibrium to the international payments mechanism. The petrodollar recycling is basically a credit flow, a series of loans to carry the deficit countries through their period of adjustment. That, however, could be the "fly in the ointment," because there may be nothing temporary about the growing deficits of the weaker countries, as long as OPEC continues to run these very large balance of payments surpluses, stemming from the high and still rising price of oil. There is reason to believe that increased stimulus in the stronger countries will not lead to an improvement in the weaker countries.

What could happen is an increased world deficit vis-a-vis OPEC, as stronger economic growth worldwide in both the surplus and deficit countries generates a sharply increased demand for oil. As the U.S., for example, stimulates its economy, it may lead to some increase in the demand for goods and services in the deficit countries, but also to an increase in the demand for Japanese goods. At the same time, both Japan and the U.S. will increase their oil imports. As the LDC's increase their raw material exports to both the U.S. and Japan, they could in fact end up with even higher deficits as their economies will require both more oil and more industrial goods, both at even higher prices. In other words, the proposal assumes a fairly constant OPEC surplus to be redistributed among oil consuming countries. Unless there is a greater effort at energy conservation, and U.S. domestic energy development the increased tempo of economic activity and world inflation could generate an even larger OPEC surplus and leave all oil consuming countries with an even larger petrodollar deficit.

Another problem with the proposed course of international economic policy involves the value of

the dollar in foreign exchange markets. With an increased U.S. balance of payments deficit, the international value of the dollar is weakening, despite offsetting capital flows. Over time, the cost of U.S. non-oil imports will rise, as it will take more dollars to purchase foreign goods from other countries. The result could be increased inflationary pressures in the domestic U.S. economy. As the yen and the mark strengthen vis-a-vis the dollar, the U.S. economy might in the short-run be importing inflation from abroad. We might accomplish our goal of reducing the deficits of the LDC's at least temporarily, but at the same time put a new inflationary underpinning into our own economy, and further increase the surpluses of Germany and Japan.

Over a longer period of time, however, an even more perverse effect could occur. As the dollar weakened, U.S. imports might become even more competitive in world markets. This could bring about a renewed U.S. trade surplus, at least vis-a-vis the non-OPEC countries, and would be counter-productive with the goal of reducing the deficit of the LDC's.

CONCLUSIONS

Whether or not the foreign economic policy of the U.S. follows this internationalist course, the key underlying problem will not be eliminated, namely the high price of oil. A system of financial transfers from the surplus industrial countries to the deficit countries, both developed and developing, may not lead to a correction of the economic imbalances unless this underlying cause is removed. Thus energy policy should become an integral part of economic policy, both internationally and domestically. In particular, if we overstimulate the world's economies in the interest of promoting higher levels of employment, we run the serious risk of renewed world inflation, and ultimately another, and perhaps even deeper, world recession. Economic growth may have to be slower than in the past, with more attention paid to the capital needs of the world economy, so that energy-conserving and new energy-producing technologies will be in place to gradually reduce the world's dependence upon OPEC oil.

FOOTNOTES

¹We expect non-communist world oil demand to increase 3.5 percent p.a. to 54 MMB/D by 1980, while non-OPEC supplies should increase to 26 MMB/D by 1980. As a result, OPEC production will decline from a present rate of around 30 MMB/D to some 28 MMB/D by 1980.

²See "Outlook for World Oil: Prices and Petrodollars," *View From One Wall Street*, March 1975. Also published in *Business Economics*, September 1975, pp. 21-31.

³See "International Commodity Issues," "Emotional Side of Divestiture," *View From One Wall Street*, November 1975 and September 1976.



The Economic View from One Wall Street

Economic Research
& Planning Division

July, 1977

ENERGY POLICY TRADE-OFFS

The President's energy program is designed to encourage the American people to use less energy in their daily activities. The President hopes to accomplish this by taxing petroleum and high fuel-consuming equipment, and by awarding tax rebates or income tax credits for the adoption of more energy-efficient methods of fuel consumption. For the consumer, it means more expensive gasoline, heating oil, gas, electricity, and low-mileage cars. These higher costs will be offset to some extent by across-the-board tax credits and by specific rebates for those who purchase smaller cars, insulate their homes, or adopt solar heating techniques. A similar set of taxes and credits will apply to the businessman, who will either adopt more energy-efficient means of production or try to pass on his higher energy costs to the consumer.

No one really knows what the program's net effect on the economy or on American lifestyles will be. The Government suggests that the economic impact will ultimately prove pretty much neutral: it is the Administration's hope that higher energy prices will be offset by less energy consumption, thereby keeping total energy costs from rising much more sharply in the future. The Government is guessing that jobs lost in industries hurt by higher energy prices will be found in new or expanded industries providing insulation, energy-efficient equipment, and new energy sources. If, in fact, the Government is right, we will all enjoy a cleaner environment and suffer no significant loss of jobs or real income. But what if the Administration is wrong? What if higher fuel prices do not substantially restrain fuel consumption, but simply lead to higher rates of inflation?

President Carter's energy program is a move in the right direction, but it is only a half step. It puts heavy emphasis on conservation but a low priority on increasing new energy supplies. Some fundamental choices have to be made between an energy policy which stresses conservation--as the President's does--and one which also emphasizes new supply. Those who favor conservation point out the benefits of a cleaner environment and a lower rate of economic growth. Those who favor new supplies emphasize the need for more jobs and for a higher rate of economic growth. Others see the redistribution of the economic pie as the most important element in the energy equation, stressing the need for sharing the burdens of higher energy costs more equitably and for preventing energy producers from making windfall profits from the growing resource scarcity. Still another view suggests that monopoly pricing by the oil-exporting countries represents the principal cause of the energy crisis. And within these groups there are many shades of opinion, making energy one of the most divisive issues in American politics today.

There are valid elements in each of these viewpoints, and the Administration has tried to incorporate many of them into its proposed National Energy Policy. Yet the broad energy policy trade-offs need further explanation and discussion.

(1) Energy and the Economy

Three years have passed since the abrupt increase in the relative price of energy. During

this time, the U.S. economy has experienced a sharp recession and a subsequent economic recovery. For that recovery to be sustained, the capacity to supply new goods and services will have to be increased. And that increase will have to take place despite a higher relative cost of energy than in earlier periods when capacity was increased.

The high price of energy today is causing both the cancellation of capital projects that are uneconomical and higher prices for the final outputs of those capital projects that are undertaken. The result is that the high cost of energy becomes--simultaneously--both an inflationary and a recessionary force. If business is to expand capacity there must be a reasonable expectation that the output can be sold at prices high enough to yield an acceptable return on investment. And the capital projects that are being postponed or cancelled are delivering neither the jobs nor the increased productivity needed in an expanding economy.

These energy-related distortions have blunted the conventional tools of economic policy. The twin evils of unemployment and inflation today do not respond readily to conventional monetary and fiscal policies. It would help to supplement them with policies to encourage capital spending--in particular, spending on energy-related projects which would conserve energy or increase energy supply and which would be economically justified. Government economic policy needs to maintain the incentives for profitable private investment in an economy where the distortions of the energy crisis join a growing list of social and environmental costs that business must pay. Without such private investment, the prospects for increasing the employment base of the U.S. economy in a noninflationary manner are bleak indeed.

The relationship between energy and employment is such that it takes more and more energy to supply a job at the level of productivity we have come to expect from the U.S. economy. Increased energy use is a prerequisite to the increased capital intensity of the U.S. employment structure. Increased energy intensity makes for increased labor productivity and consequently for the gains in real income which we call prosperity. Thus our prosperity is based on a high per capita energy consumption; we require large amounts of energy to produce those goods and services which give us a high standard of living.

The historical growth of the economy suggests that the increases in energy consumption and in productive employment are jointly related to the growth of output. Output must grow faster than employment to generate increased productivity and real per capita income gains (prosperity again). But if output does grow materially faster than employment, so will energy use. Despite the dramatic shift in employment away from manufacturing and capital-intensive industries generally, the consumption of energy per productive job has continued to increase as an integral part of the process of capital formation.

There is an often-used rule of thumb that it takes a 3% growth in real output to generate a 1% decline in the unemployment rate. With energy use likely to grow around two-thirds as fast as general economic activity, a corollary rule of thumb would be that it takes a 2% increase in energy use to bring about a 1% decline in the unemployment rate.* We estimate that the unemployment rate in 1977 will average close to 7%. To reduce this rate to 5% by 1980, around 6 million new jobs must be created to employ both those who are currently out of work as well as new entrants to the labor force. This means a growth in employment of 2% per annum between 1977 and 1980 would be consistent with a 6% rate of growth in real GNP. The difference between the growth rate of real GNP (6%) and that of employment (2%) represents growth in output per job, or productivity increases (4%). And these increases depend upon a growing supply of energy. Thus implicit in these employment objectives is a 4% rate of growth in productivity; it is likely that energy use will have to grow commensurately. In other words, if the United States economy is to provide 6 million new, good-paying jobs between now and 1980, energy use will have to grow at the rate of around 4%.

*For a fuller explanation of the energy, GNP, and employment relationships, see "Employment and Energy Independence," *Business Economics*, September 1976.

We are faced with the dual problems of unemployment and excessive dependence on foreign sources of energy. We have idle manpower resources, and we need a greater domestic supply of energy. Yet we have been unable to weld together an effective employment and energy policy. Solutions will be neither quick nor easy. But the longer we delay, the greater the vulnerability of many American jobs to foreign economic and political pressures. Between now and 1980, it is likely that the U.S. dependence on foreign oil will not decrease from its present high level. The advent of the Alaskan pipeline will only arrest the decline in U.S. oil production, while delays in increased coal production and nuclear power will have to be compensated for through increased oil imports. While we have imposed restrictions on rising domestic energy costs, we must still pay the price internationally. What had been costing us \$7 billion to \$8 billion annually for imported oil before the 1973 embargo now costs \$40 billion. The more time we waste in resolving our domestic energy supply problem, the more oil we will have to import from OPEC--at what will likely be ever-rising prices.

In 1976, the U.S. spent about \$38 billion for imported oil--an amount almost equal to our capital investment in domestic production of energy. Compare that to 1962, when the U.S. invested around \$10 billion in domestic energy while paying \$1.8 billion for oil imports. Within 15 years, our spending on imported oil has grown from an amount equal to less than 20% to almost 100% of our domestic energy investments.

A proportion of those resources devoted to importing oil could be fruitfully invested in increasing the supply of U.S. energy and in creating productive employment. Recent studies have suggested that replacing about 2.0 million barrels per day of U.S. oil imports with an equivalent amount of domestic energy would ultimately generate as many as 800,000 productive new jobs in the U.S., depending upon the particular policies adopted. According to one study, about 25% of those new jobs could come from additional domestic energy production and from the construction of new plant facilities. The balance of new growth in employment would be derived from non-energy sectors, which would produce more goods and services both to support the energy-producing industries and to supply what would become a generally faster-growing economy. Although the policy alternatives to achieve these improved employment opportunities may differ, the overall implication for the economy is the same: idle manpower can be put to work in the implementation of a policy of greater energy self-sufficiency.

(2) Energy and the Environment

Being on the side of a clean environment is as much a cliché as being on the side of Motherhood and Apple Pie. But decisions have to be made about priorities. The extreme environmentalist position questions the need for continued economic growth, arguing that we would all be healthier and happier with a slower pace of economic activity. While this utopian vision of society might appeal to a narrow segment of American public opinion, it is not a viable option in a world of competing claims on limited resources. Intergroup frictions would be exacerbated by a stagnating economy.

The more pertinent question is how to reconcile the widespread concern for a cleaner environment with the need for economic growth. The Carter program suggests that we can use less energy as we produce and consume the goods and services which make for a healthy economy. According to the Administration, the utilization of less energy per unit of output will help to preserve the environment while still maintaining a viable economy.

The tough trade-offs, however, are quantitative. How much can we go in one direction without jeopardizing the goals of the other? There are no simple answers, but a few observations might be helpful.

First, we have imposed many new environmental regulations without recognizing the increased costs of meeting these new standards. Energy costs have risen not only because the resources themselves have become scarce, but also because the techniques for producing and consuming these resources must now meet tougher environmental standards than in the past. At the same time, energy consumers have an understandably negative reaction to paying the higher prices which result from these increased costs. By proposing higher taxes on energy use, the Government is not only sending us a signal that we need to reduce fuel consumption, but also that we

have to pay for the cost of maintaining a cleaner environment. Second, it is important to remember that because energy investments require very long lead times before any new production is available, the energy-producing industries need a consistent, long-term set of guidelines which they can be reasonably sure will be applicable at the time a new plant comes on stream. Indecision in Washington concerning the energy-environment trade-off and the constantly changing pattern of regulations have delayed new investment. President Carter's policy statement recognizes this issue and states: "Reasonable certainty and stability in Government policies are needed to enable consumers and producers of energy to make investment decisions."

Finally, nationwide environmental standards may be inappropriate, since it is the local community which must pay for the higher costs of a clean environment and make the decisions concerning the potential loss of jobs and income. Regional differences are significant, and local autonomy in the environment-energy trade-off should be preserved as much as possible.

(3) Energy and Equity

Since the American people became aware of the energy crisis, there has been widespread resentment against the oil industry for allegedly profiting unwarrantedly from the high oil prices imposed by the oil-exporting nations. As a result, sharing the burden of sacrifice equally between oil companies and their customers has become a constant theme of national energy policy. The former Republican Administration followed this theme when it proposed an excess-profits tax and the use of compensating payments to low-income groups as part of its attempt to decontrol U.S. crude oil prices. The present Democratic Administration follows this theme, too; it is keenly aware of the political barriers to allowing the revenues from higher oil prices to flow back to the oil producers. To quote President Carter: "If producers were to receive tomorrow's prices for yesterday's discoveries, there would be an inequitable transfer of income from the American people to the producers, whose profits would be excessive and would bear little relation to actual economic contribution."

The Administration's proposal for dealing with this equity issue, and at the same time for forcing the public to pay the higher international price in the interest of conservation, is to impose a tax on the difference between the present regulated U.S. price and the world price--the "crude oil wellhead tax". The revenues from this tax, which could be as high as \$15 billion annually when fully implemented, would be rebated to the public in the form of income tax credits. The Federal Government claims that this approach would recycle these funds through the economy in a more equitable manner than the distribution arrived at through conventional private transactions. Unfortunately, higher taxes will not buy us one additional drop of domestic oil, whereas market prices for oil would inevitably stimulate domestic supply. And the Government's program would not induce very much conservation either, since the final price paid by the consumer would not be much higher than it is now.

It is a simple truth of resource economics that when incremental supplies become scarce those who own existing and less expensive supplies stand to make windfall profits. If these profits are reinvested in additional productive facilities, they serve a useful purpose. To the extent that they are not reinvested, however, many would argue that taxing them away would be appropriate. It would be logical (and easy) to devise a program to encourage reinvestments of these profits in new productive facilities by taxing that portion that is not so reinvested. Instead the Federal Government proposes to preempt any such windfalls and donate them to the consumer through a complicated scheme of wealth redistribution. This is bound to raise substantial controversy, concerned less with energy than with our tax and welfare goals.

(8) International Pressures

President Carter's energy package makes almost no reference to OPEC. Yet the American people are being asked to make sacrifices. Certainly a balanced program should include plans to dilute the price-setting powers of the cartel, so that ultimately market pressures would bring about lower prices. Present sacrifice should have the prospect of future reward.

The Administration contends that the world as a whole is facing a physical shortage of oil as early as 1985. That proposition is open to question. There is an economic shortage in the U.S. because controls hold prices below market clearing levels. The U.S. may have a physical shortage at current controlled price levels; but it is improbable that the world as a whole is facing such a shortage. By the end of 1977, OPEC will have excess capacity of 12 MMB/D, some 25% of world consumption. And that is only in terms of proven resources! According to even the most conservative geologists, ultimately recoverable oil reserves around the world are vastly in excess of what the world will need for several decades. If oil supplies run short in the near future, it will be because of pricing and politics, and because of technical factors such as very long production lead times.

Soaring energy costs today are less the result of impending physical shortage than of OPEC's monopolistic pricing practices. Until the OPEC issue is recognized, dealing with the physical shortage alone may be costly and ineffective.

In his energy program, the President has stressed the goal of reducing U.S. oil imports over the next eight years. Through a mix of energy conservation and new supplies of alternate fuels, the President hopes to gradually reduce our dependence upon OPEC oil supplies. Although the President did not explicitly state that one objective of his energy program might be to dilute the price-setting power of the oil cartel, the goal of reducing U.S. oil imports implicitly leads to the conclusion that the U.S. would like to achieve a greater influence over the setting of international oil prices. Thus, if our contention is correct that it is only the U.S. which has a temporary physical shortage, sufficient oil supplies will continue to be available from other countries. Therefore, we should be able to change the mechanism by which we import our oil today, and thereby at least try to obtain better commercial terms for our oil imports.

It is important for the nation to make every effort to come up with an approach for dealing with OPEC now, not only in terms of oil but also in terms of the petrodollar problem which has the potential for creating worldwide economic stagnation. Today, the international financial and economic forces are so linked with the energy problem that policies for dealing with each separately may not work; they can, in fact, prove counterproductive.

Arnold E. Safer



The Economic View from One Wall Street

Economic Research
& Planning Division

ENERGY AND ECONOMIC POLICY: CONSTRAINT OR COMPLEMENT*

The economic policy debate today centers around the degree of fiscal stimulus required to "get the economy moving again". The pause in business activity during the second half of 1976 has clearly increased the unemployment rate beyond what most observers consider acceptable. The trade-off with inflation is less clearly defined, and represents the focus of real dispute between two essentially different perceptions of economic behavior. On the one hand, a well-publicized group of Democratic economic advisors has argued forcefully that the economic slowdown was largely caused by a short-fall in the government deficit. That is, the Ford Administration simply did not spend what had been budgeted, thus lowering the aggregate demand for goods and services throughout the economy. Although the federal deficit during 1976 was one of the highest in history, orthodox Keynesian doctrine suggests that insufficient demand stimulus was the cause of the slowdown. By implication, therefore, a higher level of fiscal stimulus would be the remedy. Several key Republican economic advisors have offered an opposing viewpoint. Inflation is the underlying cause of the economic malaise. As the consumers' real income is eroded by abnormally high rates of inflation, spending levels become dampened, especially in the volatile housing and consumer durables markets. The level of prices for consumer nondurables (food, fuel, clothing, etc.) is so high that consumers have all they can do to keep up with these necessities and relatively little is left over to make the large purchases of consumer durable goods. Acceptance of this thesis of an inflation-induced business slowdown suggests another set of policy prescriptions principally focused on a restrictive monetary policy to dampen inflationary expectations. In this view, tax cuts are not looked upon as primarily counter-cyclical tools, but rather should be accompanied by government spending cuts thereby shifting a greater proportion of aggregate demand to the private sector, but at the same time restraining the level of total demand.

Although there is something to be said for both of these approaches, I believe that there have been some fundamental changes in the U.S. economy caused, in large part, by the abrupt change in the relative price of energy. These changes seem to be related to the difficulty of the U.S. economy to respond on the supply side in its historical manner. I submit that one of the principal sets of supply constraints is intimately associated with the Energy Crisis. These constraints are both cyclical and secular, in the sense that they affect not only the course of economic recovery from its recession trough, but also impact the longer term expansion path of economic growth.

*Presented by Dr. Arnold E. Safer, Vice President, Irving Trust Company, at the Atomic Industrial Forum held in Washington, D.C. on January 11, 1977.

I do not refer primarily to a lack of physical supply, but rather to the high price of energy which forces either a cancellation of capital projects because they are uneconomic or requires a higher price for the final output which adds to inflationary pressures. Both of these are prevalent in today's energy-short economy and form an integral part of the so-called long-run capital shortage. The result is that the high cost of energy becomes both an inflationary and recessionary force at the same time. If capital projects are to be carried out in today's economy there must be a reasonable expectation that the output can be sold at prices high enough to yield an acceptable return on investment. To this extent, the abrupt and dramatic increase in oil prices has added an inflationary underpinning to the production of most goods and services in the U.S. economy, and the series of second and third order inflationary effects have not yet been fully digested into the cost-price structure of the economy. At the same time, because of the need by consumers to spend more on energy and less on other goods and services, those postponed or cancelled capital projects are delivering neither the jobs nor the increased productivity which is so necessary for an economic expansion sufficiently rapid to absorb the new entrants into the labor force.

In this view, neither the stimulative fiscal policy of the Keynesians nor the anti-inflationary credit policies of the monetarists will be enough to achieve the goals of lower unemployment and inflation. What is needed is a policy which encourages capital spending, and in particular spending upon energy-related projects. These can take the form of energy conservation or of increased energy supply. In both cases, however, they must be economically justified, and that is where sound public policy must enter. This is a new dimension to government economic policy--how to provide the incentives for profitable private sector investment in an economy where the distortions of the Energy Crisis must be added to a growing list of social and environmental demands. Without this capital investment, however, the prospects for increasing the employment base of the U.S. economy in a non-inflationary manner will become bleak indeed.

Statistical Evidence

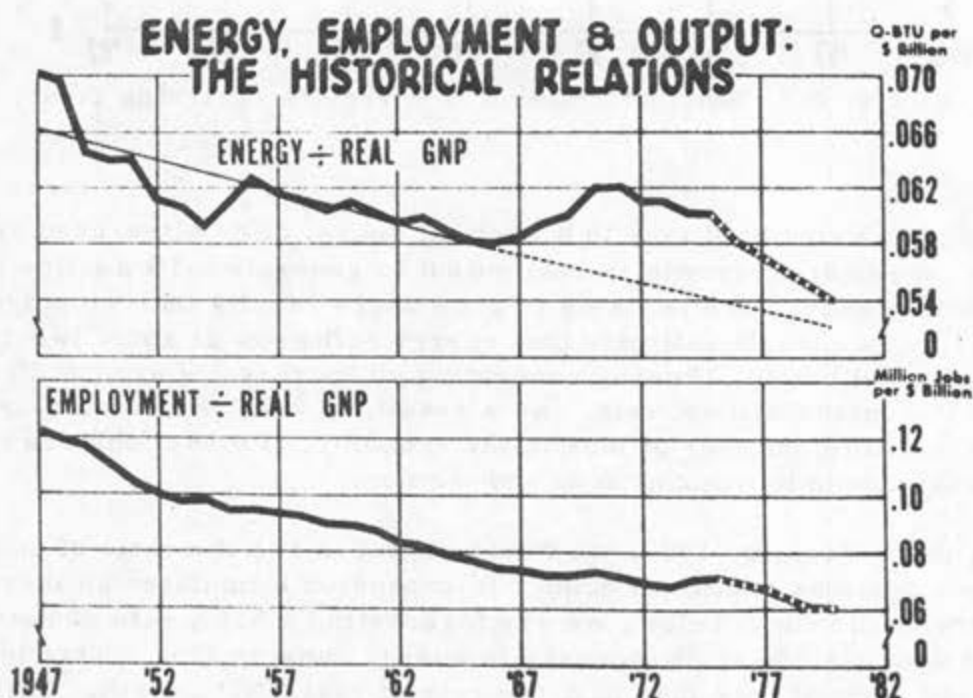
The relationship between energy and employment demonstrates the single overriding fact that it takes more and more energy to supply a job at the level of productivity we have come to expect from the U.S. economy. Energy is an important segment of the increasing capital intensity of the U.S. employment structure. Increased energy intensity makes for increased labor productivity and thus for the gains in real income which we call prosperity. Because we sustain a high per capita energy consumption, we are prosperous. In terms of output, this means we require large amounts of energy to produce those goods and services which give us a high standard of living.

Postwar economic history bears out this important relationship. As the first two charts show, while the amount of energy per dollar of real output steadily declined over the 1947-66 period, the number of jobs required to produce a unit of output declined even faster. As a result, it took more and more energy to sustain the same levels of employment and output. This trend accelerated over the 1967-73 period, as energy use grew by over 30%, while employment increased by only around 15%. With the 1974-75 recession, both the use of energy and the level of employment declined. However, because of the high price of energy relative to other inputs, energy use declined more than employment, so that the energy/labor ratio declined from its peak 1973 level.

In 1976, we estimate that both energy and employment grew by around 3%, so that the ratio held steady. At the same time, real GNP grew by an estimated 6.2%. Due to the forces of cyclical recovery from the depressed levels of 1975, employment grew by more than its long-term trend relation to real GNP growth. Energy, on the other hand, grew by somewhat less than its long-term trend relation to GNP, primarily due to the initial conservation programs brought about by the dramatically higher price of energy. The outlook for 1977 and beyond, however, suggests that cyclical recovery may be giving way to secular expansion.

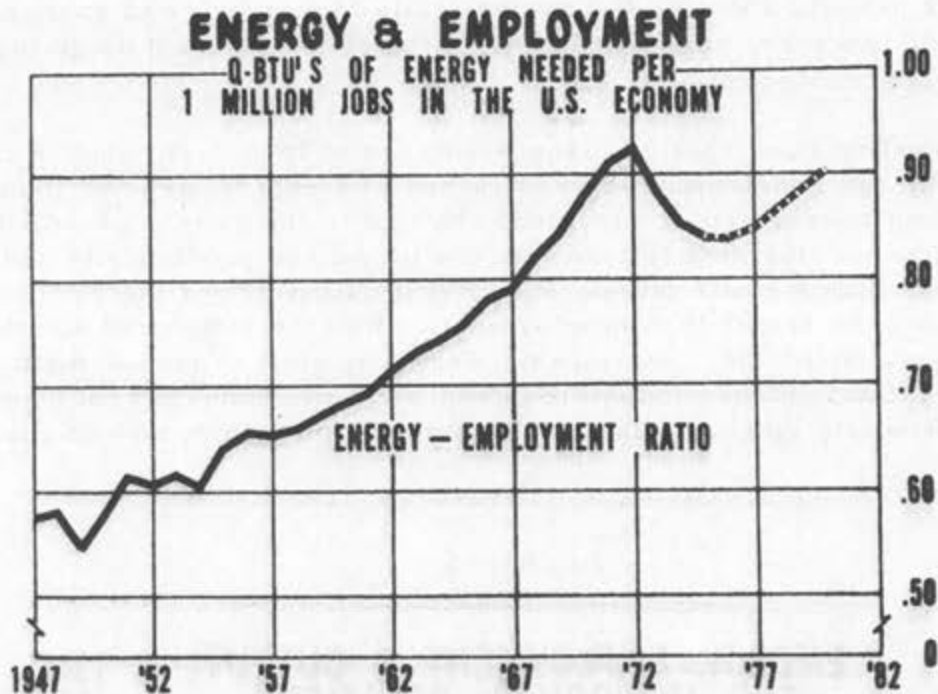
The secular question here relates to the structure of long-term growth in the economy. Can the growth in energy consumption be restrained to a rate no greater than the increase in employment? Both energy and employment are tied to the growth of output. And output must grow faster than employment to generate the increased productivity and the real per capita income gains which we call prosperity. But if output grows faster than employment, energy use will also grow faster than employment. Both the historical and technological evidence point to this conclusion. Despite the dramatic shift in employment away from manufacturing and capital-intensive industries generally, the consumption of energy per productive job has continually risen. It is an inherent part of the process of capital formation.

Chart I



Source: U.S. Dept. of Commerce. Projections by Irving Trust.

Chart II



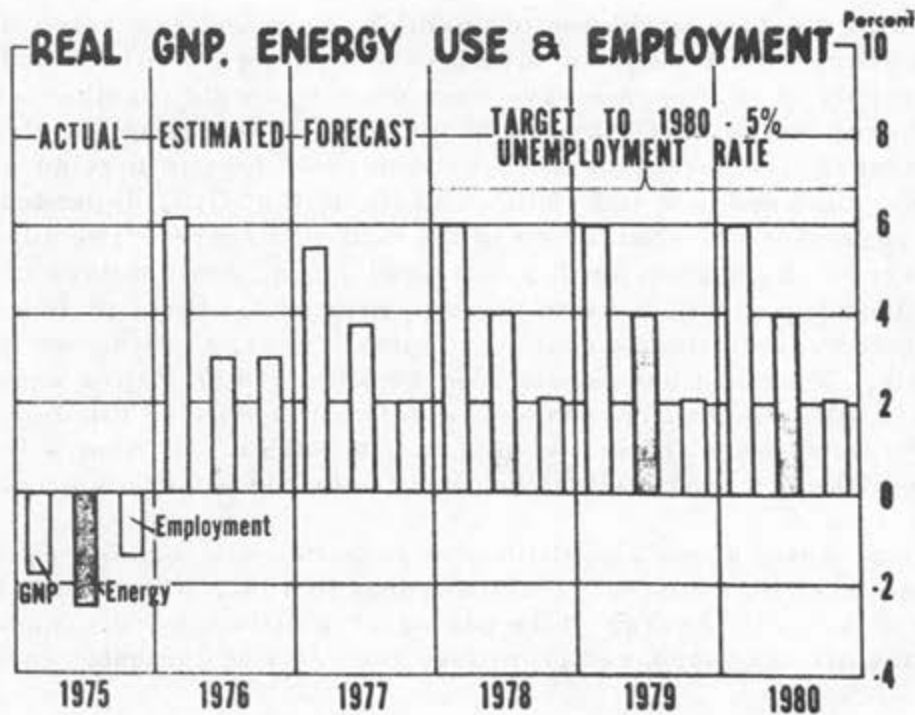
Source: U.S. Dept. of Commerce. Projections by Irving Trust.

These relationships also hold true in a cyclical sense. The often-used rule of thumb that it takes a 3% incremental growth in real output to generate a 1% decline in the unemployment rate implies that energy use is likely to grow more rapidly than employment. As a corollary to that rule, we would estimate that energy will grow at about two-thirds the rate of growth of incremental output, thereby generating an increase of around 2% in energy use per 1% decline in the unemployment rate. As a result, it will take an increasing amount of energy to sustain the same number of jobs in the economy, if these jobs are to generate a higher level of real income to working men and women.

In assessing the outlook for 1977, we would expect to see the ratio of energy to employment increase once again as continued economic expansion stimulates an increased use of energy. According to the chart below, we are forecasting a 5.5% rate of real GNP growth for 1977, coupled with a 3.5%-4.0% increase in energy consumption. This is in contrast to 1976 when energy grew at less than half the rate of real GNP growth. This was primarily due to the implementation of the "easier" conservation programs caused by the initial shock of higher energy prices. For 1977 and beyond, however, tougher and more costly conservation programs will be needed, and these will take a longer time to yield significant new results. At the same time, we are projecting a 2% increase in employment, which will have the effect of once again increasing the energy-employment ratio.

Looking longer run, if we assume that a target of government economic policy is to reduce the unemployment rate to a 4 1/2%-5% range by 1980, it will require around a 2% per annum increase in employment. This employment growth in turn is tied to at least a 6% per year growth in real GNP. If these new jobs are to yield the productivity gains necessary for non-inflationary growth, energy use will likely grow by around 4% per year over the same period. That is, if the U.S. economy is to create 8 million new jobs between 1977 and 1980, based upon an assumed growth of around 6% per annum in real GNP, there must be around a 2% per annum growth in the level of employment. Productivity gains of about 4% per year make up the difference, and for the most part, that productivity gain is intimately linked with an even more energy-intensive employment structure.

Chart III



The cyclical response of employment and inflation demonstrates the shorter term constraints imposed upon the U.S. economy by the high cost of energy. There is a growing perception that attempts to further stimulate the economy from the overall demand side, so as to increase the demand for jobs, could lead to a further exacerbation of inflationary pressures and possibly another recession. Whether one accepts this view or not, it is clear that increasing the demand for goods and services through increased stimulation of aggregate economic demand will do little to increase the supply of domestically produced energy. Rapid economic growth over the next few years will likely cause a greater than

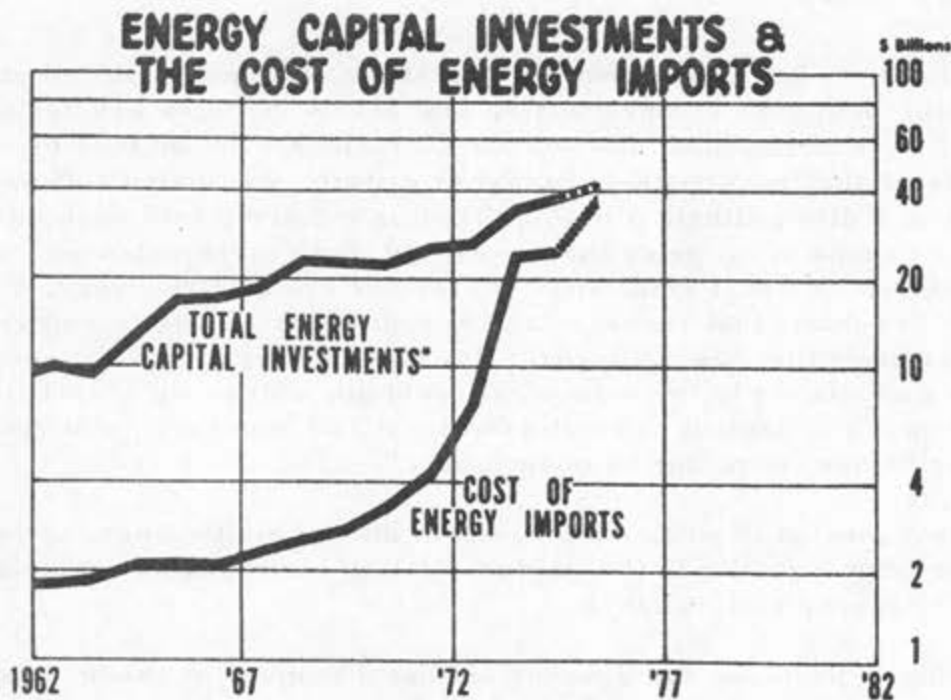
proportionate increase in the use of energy, as industries will not have had ample time to institute energy-conservation measures nor to install energy-saving capital equipment. With the high cost of energy today, and the likelihood of its cost increasing even further if a more stimulative demand policy were adopted, the energy-related inflationary underpinning of the economy could be severely aggravated. As a result of these considerations, I submit that using an ever-increasing dose of general fiscal stimulus to create more jobs will aggravate the energy crisis and yield only very limited gains in real income. In other words, we can no longer accept the prescription of stimulating demand without paying attention to the economy's supply side. And this is precisely the point of interface between overall macroeconomic policy and the energy problem.

The Costs of Delay

We are faced with the dual problems of unemployment and excessive dependence on foreign sources of energy. Although we have idle manpower resources and the need for a greater domestic supply of energy, we have been unable to weld together an effective employment and energy policy. Solutions will not come easily or quickly. But the longer the delay, the greater the vulnerability of many American jobs to foreign economic and political pressures. Between now and 1980, it is likely that U.S. dependence on foreign oil will increase, regardless of what we do in the next few years. The advent of the Alaskan pipeline will only arrest the decline in U.S. oil production, while delays in increased coal production and nuclear power will have to be compensated for through increased oil imports. While we have imposed restrictions on rising domestic energy costs, we must still pay the price internationally. What had been costing us \$7 billion to \$8 billion annually for imported oil now costs us \$35 billion. And the longer we delay in resolving the domestic energy supply problem, the more we will have to import from OPEC--at what will likely be ever-rising prices, given OPEC's near-monopoly power over the world oil market.

In 1976, the U.S. spent about \$38 billion for imported oil--almost equal to our capital investment in domestic energy supply. Compare that to 1962, when the U.S. invested around \$10 billion in domestic energy while paying \$1.8 billion for oil imports. This means our cost of importing oil has increased from less than 20% of domestic energy investments in 1962 to almost 100% today.

Chart IV



Conclusions

It would seem possible that a proportion of those resources devoted to importing oil could be fruitfully invested in increasing the supply of U.S. energy and in creating productive employment. A recent study by the Economics Department at U.C.L.A. suggests that replacing U.S. oil imports of around 2.0 million barrels per day with an equivalent amount of domestic energy would ultimately generate as much as 800,000 productive new jobs in the U.S., depending upon the particular policies adopted. According to that study, about 25% of these new jobs could come from additional domestic energy production and the construction of new plant facilities. The balance of the growth in employment would be derived from non-energy sectors which would produce more goods and services, both to support the energy-producing industries and to supply what would become a generally faster-growing economy. Although the policy alternatives to achieve these improved employment opportunities may differ, the overall implication for the economy is the same: idle manpower can be put to work in the implementation of a policy of greater energy self-sufficiency.

I would like to quote from a recent speech by Mr. Robert Roosa, a prominent New York banker. He says:

"It is becoming increasingly evident, whatever the original merits of the OPEC case might have been, that the mutation of energy costs which occurred in late 1973 has in fact drastically altered the "production function" of the world economy, apparently

imposing a slower or lower gradient for overall growth than might otherwise have been attainable. And until comprehensive new energy policies are devised and implemented, here and abroad, the non-OPEC nations will continue for some years ahead to confront that real obstacle to higher growth, while also suffering the consequences of a disequilibrium in their trading relations with each other--even without another round of oil price increases. In these circumstances, while traditional monetary and fiscal tools will help further cyclical recovery, they may not be enough to sustain that recovery and are quite inadequate to repair the critical structural distortion that has occurred. Nor can conservation strategies by themselves provide an answer to the structural problem, unless we are willing to sacrifice even more growth and prolong unemployment. A full recovery requires that deliberate action of a far bolder character be undertaken."

Mr. Roosa then goes on to outline a long-term plan of action where government and business could participate jointly in the implementation of programs designed to achieve a greater degree of energy self-reliance.

The partnership of business and government has a number of precedents, especially in the postwar economic experience of the U.S. Both the development of atomic energy and the founding of the aerospace industry were joint responses by government and business to critical national problems. The Energy Crisis today demands no less attention than the challenges of World War II or of the Soviet Sputnik crisis. With the bitterness of Vietnam and Watergate behind us, I believe that the political climate will be more amenable to the development of an acceptable national energy program built around a successful partnership of private industry and sound public policy.

###

October 13, 1977

Mr. Paul A. Mazur
22 Conklin Place
Dumont, N.J. 07628

Dear Mr. Mazur:

Thank you for your letter of October 8 and your expression of concern regarding energy supplies for the United States. Your counsel in this connection is much appreciated.

While an Energy Task Force has been created, it will deal with political action rather than specific commercial interests. Thus, a meeting with our Task Force would be to no avail..

With repeated thanks for your interest and with every good wish,
I am

Sincerely,

Alexander M. Schindler

22 Conklin Place
Dumont, New Jersey 07628
Phone 201-384-4871

October 8, 1977

Rabbi Alexander Schindler
Union of American Hebrew Congregations
838 Fifth Avenue
New York, N.Y. 10021

Dear Rabbi Schindler:

While I watch the progressive erosion of America's good will and support toward Israel, I recall the now apparent prophetic statement by Dr. Emanuel Rosenblat in 1971 that no president of the United States, no matter how sympathetic toward Israel, can risk the interest and safety of his country when the "day of decision" arrives that he must choose between the necessity of our oil supply from the Arab cartel and the existence of Israel.

At that time, Dr. Rosenblat was convinced that in order to terminate this inevitable progression, we must find new oil supplies in non-OPEC countries, which are sufficiently large to compete with the flow of oil from the Arab cartel. He also had incontrovertible facts that no amount of money and effort spent on domestic oil exploration and production could satisfy the United States requirements.

He demonstrated that there are unexplored giant basins in Africa and South America with great resource potential for oil and specifically pointed out that the Etosha basin in South West Africa might yield enough oil to solve our energy problems. Our exploration in the Etosha basin is far enough advanced, that intensive effort can bring about quick results. We have not had an opportunity to demonstrate how that can be done.

I have seen announcements that you have formed an Energy Task Force which will study and recommend methods for increasing the energy supplies for the United States.

We wish to have an opportunity to meet with members of the Task Force.

Sincerely yours,

Paul A. Mazur
Paul A. Mazur

PAM:f

*Thank you for your counsel
Task force on Energy concerns
for political action + cannot
get involved with
Spec for committee
interests*

June 23, 1977

Mr. Emanuel Rosenblat
175 Lorraine Avenue
Mount Vernon, N.Y.

Dear Mr. Rosenblat:

My travel schedule has been exceedingly heavy and thus I trust you will forgive the delay in responding to your letter of June -.

It was thoughtful of you to share with me your concerns and I want to assure you that I share them. I am trying my utmost to get the message across and the enclosed item from the Jewish Week will give you an indication of the things I have been saying in regard to energy.

With kindest greetings, I am

Sincerely,

Alexander M. Schindler

Encl.

Emanuel Rosenblat

175 LORRAINE AVENUE
MOUNT VERNON, N. Y.

(914) 668-1618

COUNSELLOR AT LAW

June 9, 1977

Rabbi Alexander M. Shindler, President
Union of American Hebrew Congregations
838 Fifth Avenue
New York, New York

Dear Rabbi Schindler:

1. In the spring of 1976, I brought to your personal attention the impending politico-economic crises hanging over the head of the American people because of the dwindling U.S. oil supply and the ever increasing demand for oil. I indicated to you the potential for danger to the existence of the state of Israel inherent in the U.S. dependence on imports to fill this gap.

2. On the 20th of April, 1977, President Carter told the American people while the whole world listened how serious the situation had become. He painted a gloomy picture for the future. Now everyone who heard knows for the first time the extent of the U.S. dependence on imported oil--mainly Arab oil.

3. In 1970 when U.S. imports were only 3.4 million barrels a day, its dependence on Arab oil was 5.8%. At the time of the Arab embargo, one of crisis for the U.S. and Israel, 11.5% of the 6 million barrels a day imported, came from the Arab Block. By the end of 1976, of the approximately 8 million barrels a day of imports, dependence on Arab oil reached 31.5% of the total. At the time of the President's speech, it appeared that approximately 50% of the imports were from the Arab Block. The imports for that first quarter of 1977 had already averaged almost 9- $\frac{1}{2}$ million barrels a day. Now U.S. production is less than 8 million barrels a day.

4. It should be obvious then, that the very military safety and economic security of the United States is keyed to this ever increasing dependence on Arab oil. It appears to me that our Jewish leaders have not made it explicitly clear to American Jewry just how inextricably intertwined the fate of the continued existence of the State of Israel depends on the whim of this Arab Block supplying this much needed oil.

*Tell him I agree with him -
Send him a copy of my Jewish Week
Street
Tell him I'm doing everything
I can.
Held
to about
J.C. - 9-*

5. You no doubt recall that in 1976 when President Ford permitted Egypt to receive C 130 cargo planes, you felt a crack appearing in the solid wall of support for Israel. Now Secretary Vance in 1977 had to be reminded by the Senate that his memo PRM 12 failed to include Israel when he listed the countries who would receive access to co-production agreements. President Carter is now recommending acceptance by Israel of a P.L.O. State on the West Bank of the Jordan and perhaps the Gaza strip as well in exchange for recognition of Israel as a state. Sovereignty by its very definition cannot be negotiable.

6. While its true that on May 19th, 1977 President Carter reaffirmed that the U.S. will honor its historic responsibilities to assure the security of the State of Israel in his final decision, nevertheless the memo itself was not altered from its original content that only Nato, Australia, New Zealand and Japan would be exempt from general restrictions on exports. Who will read the handwriting on the wall for American Jewry?

7. It's folly for American Jewry to expect an American President or an American Congress to openly jeopardize the military security and economic health of the United States just to honor its historic responsibility to assure Israel's right to exist. Since April 20, with the President's revelation of our great emergency, imports for the comparable period reached new highs, domestic supply new lows and demand for oil reached new records. But life goes on undisturbed because the cancer in the situation is that the U.S. Public and its representatives have come to accept without contest this overwhelming dependence on Arab oil.

8. When the safety of our country is at stake there will be no choice. All other considerations will have to be put aside. As Americans we must and will support that decision. But as Jews we must bend our every effort and thought to eliminate that dependence which could force that inevitable choice.

Sincerely,



Dr. Emanuel Rosenblat

cc: General Julius Klein

ERASABLE
SPHINK

May 24, 1977

Mr. Jeffrey H. Newman
42 Perry Street
New York, New York

Dear Mr. Newman:

Many thanks for your letter of May 10. I am grateful to you for sharing with me your concerns and comments on energy and the program of the Carter Administration.

As I am really not an expert on this subject, I am taking the liberty of sharing your letter with appropriate persons in Washington.

With kindest greetings, I am

Sincerely,

Alexander M. Schindler

142 Perry Street
New York, N.Y.
May 10, 1977

Rabbi Alexander Schindler
Chairman of the Conference of
Presidents of Major American
Jewish Organizations
515 Park Avenue
New York, N.Y. 10022

Dear Rabbi Schindler:

In the April 24 issue of The Jewish Weekly Richard Yaffe quoted you as calling on American Jewish support for President Carter's energy program to make America independent of Arab oil and blackmail. You stated, wisely, that you didn't know whether Schlesinger was right in claiming that the program would save 5 million barrels of oil a day, but that even 50% success would constitute a dramatic reversal of the present dangerous trend, with all its unpleasant economic and political consequences.

In view of the opposition the Carter plan is running into, not only from certain interests but from many taxpayers, it would be the essence of wisdom to bear in mind possible alternatives. Accordingly I submit to you as worthy of looking into a program which, in my opinion, holds promise of reversing the dollar drain and emancipating this country from foreign oil domination even more effectively.

The magnitude of the problem can be realized by estimating that, with some \$46 billions accumulated yearly by the handful of Arab oil-producing nations, within ten years they will have half a trillion dollars to purchase arms and to invest in the West, with eventual control of major corporations and concomitant political power. For American Jewry this prospect is a cause of deep anxiety. Yet, I submit, the response to this challenge has been unworthy of our intelligence and business acumen. We have been told to keep a low profile, but it seems more like our head buried in the sand. Far from cautious expressions of gratitude for the small blessings emanating from the Administration, we need to combine our scientific, technical and industrial know-how and come up with effective energy proposals of our own that a grateful nation would accept and expedite.

Let us take the Carter objective of reducing gasoline consumption by 10% through taxing gasoline and big cars punitively. The approach is indirect. Suppose instead there were an additive which could replace 10% of gasoline in cars without affecting performance adversely. That additive exists and it is in use today in many parts of the earth. It has two forms: methyl and ethyl alcohol. Recent tests at M.I.T. showed that that admixture resulted in a fuel that gave more mileage and less pollution. (Confer Dr. Tom Reed, Lincoln Laboratory, M.I.T.) No special motor adjustments were required.

What is even more intriguing, methanol, as it is called, can be made from solid waste, thus helping municipalities solve their critical garbage disposal problems at the same time. A similar alcohol can be manufactured from wood waste, crop waste, in fact anything organic. In Nebraska the alcohol is made from grain crop waste and when added to gasoline, the resulting mixture is called "gasohol" and is sold in the state. A third exciting characteristic of its manufacture is that the process can be shifted to making methane gas, where, we are told, another shortage is developing.

If all this is true, why then is it not being manufactured in great quantity and added to gasoline at the pump? There must be serious objections or it would have been developed by now. The only way I can answer this is to inform you that Dr. Tom Reed's experimental tests with some 200 faculty members at M.I.T. were interrupted in the middle, at the same time that M.I.T. received half a million dollars from Exxon. Also that legislation setting up a million dollar methanol program for California suddenly ran into opposition. Scott Carpenter, the astronaut, who was to head it up, attributed the sudden loss of interest to pressure by Standard Oil of California. (In Brazil the government was smarter. They got one of the big oil companies, Shell, to make the ethyl alcohol for them! Eventually they will have to replace dwindling gasoline with some other fuel, and they know it, but they are in no hurry until they've made the most out of oil. But why should we let them determine when?)

If the Carter administration mandated a methanol/gasoline fuel for all government vehicles, that would immediately create a market, and perhaps that is all that the country would need to start the ball rolling. State and local governments could follow suit, mandating the admixture on all pumps. Large scale manufacture would bring the cost down considerably, municipalities could find it a source of income. And there is no need to stop at a 10% mixture. Washington could call on the auto companies to adjust auto motors to take 15% and over of the fuel. If the German and Swedish governments can work with Volkswagen and Volvo to develop a methanol program, why can't we?

I will not go into other aspects of the Administration's energy program except to say that there are similar deficiencies, except for the important conservation principle, and not enough insistence on speedy development of clean and renewable sources of energy. The important thing to emphasize here is that we can reduce gasoline consumption without a punitive tax, simply by replacing part of it with a substitute. And we can do it rapidly and predictably. The only problem is, who will mount the necessary drive?

If you want to discuss the matter further, please telephone me at 243-5730.

Sincerely yours,

Jeffrey H. Newman

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National Jewish Community Relations Advisory Council

55 West 42nd Street, New York, N. Y. 10036

(212) 564-3450

May 9, 1977

Rabbi Alexander M. Schindler, Chairman
Conference of Presidents of Major
American Jewish Organizations
515 Park Avenue
New York, New York 10022

Dear Alex:

I know that you, both as Chairman of the Presidents Conference and as President of the UAHC, a member agency of the NJCRAC, will find of interest the text of the section on energy to be included in the Joint Program Plan for 1977-78 when it is published June 1. This section as well as the balance of the Joint Program Plan was adopted by the Executive Committee of the NJCRAC at its meeting on May 1.

The draft, submitted to the Executive Committee, was recommended by an NJCRAC Task Force on Energy which was mandated by the NJCRAC Plenum last January in Miami Beach, after a Plenary Session on energy which was addressed by Senator Henry Jackson. The Task Force is comprised of representatives of each of our nine national agencies, including staff members of these agencies who have developed special expertise in the area of energy as a result of their own agencies undertaking special consideration of this problem, and community representatives, including distinguished experts in the field of energy who bring various perspectives to our discussion. Because of the importance of this issue, I am happy to say that Jordan Band, a past Chairman of the NJCRAC, has agreed to chair this Task Force on Energy, which will be linked to the NJCRAC Commission on Equal Opportunity and Urban Affairs.

The immediate charge upon the committee is to utilize this statement as a criteria for a process by which we will attempt to evaluate the proposals of Carter and others in regard to the energy crisis, which we describe as perhaps America's most critical problem in the years ahead. You will also note that the main thrust of the approach is in terms of identifying this as a critical American issue, which, if left unresolved, would face this country with catastrophic social, economic and political consequences and threaten the independence of American foreign policy. By design, it avoids giving emphasis either to the potential threat inherent in the energy issue to Israel's special relationship

May 9, 1977

with the United States or to the possibility of anti-Semitism growing out of this issue. It is, for this reason, that the Task Force operates within the framework of the Commission on Equal Opportunity, rather than the NJCRAC Israel Task Force. In short, the agencies, both national and local, feel very strongly that this is an issue that must be dealt with as a domestic matter rather than within the framework of the Middle East.

I am confident that you share this assessment and analysis. Thus, we would hope, as we have previously stated at meetings of the Presidents Conference and in discussions with you, that the Presidents Conference will not involve itself in this area. I hope you agree that the matter is in competent hands, and we look forward to the same cooperative process in the NJCRAC that resulted in the significant achievement in regard to anti-boycott legislation. Furthermore, I believe that you concur with the judgment expressed by Joe Glaser's committee that the Presidents Conference will in no way compete, and I might add duplicate, the established functions of constituent organizations. I hope that I am correct in this assumption in regard to the vital question of energy.

Warmest regards.

Cordially,

Theodore R. Mann
Chairman

TRM:ZC

CC: Jordan C. Band
Albert D. Chernin
Yehuda Hellman
Rabbi Israel Miller
Albert Vorspan

ABRAHAM N. FRANZBLAU, PH.D., M.D., L.H.D., (F.A.P.A.)
1 GRACIE TERRACE, NEW YORK, N. Y. 10028
TRAFALGAR 9-7678

May 1, 1977

Dear Alex,

I read your interview by Jaffe on the Energy Crisis etc. in the "New York World", and wish to congratulate you. It is the kind of "in depth" exploration that leaves little chance, misquotation or misinterpretation, and you come off just great! I hope everyone reads and takes note.

My congratulations are, perhaps justifiably, tinged with a bit of pride in you.

Rose sends her best.

Cordially,
Ab

A

Rabbi Alexander M. Schindler



Dear Abe -

How thoughtful of you
to write! You were my teacher
and so you must shoulder
both the pride + embarrassment
I give you

Warmest good wishes,

Alexander

WILLKIE FARR & GALLAGHER
(SYKES, GALLOWAY & DIKEMAN)

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CHARLES S. SYKES
THOMAS N. TARLEAU
COUNSEL

MIDTOWN OFFICE
277 PARK AVENUE
NEW YORK, N. Y. 10017

SYKES, GALLOWAY & DIKEMAN OFFICE
120 BROADWAY
NEW YORK, N. Y. 10005

EUROPEAN OFFICE
16, AVENUE PIERRE I^{ER} DE SERBIE
75116 PARIS, FRANCE
TELEPHONE 723-5156
CABLE "CONVEYANCE PARIS"
TELEX: 842-620080

April 26, 1977

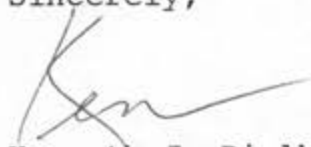
Rabbi Alexander M. Schindler
President
Union of American
Hebrew Congregations
838 Fifth Avenue
New York, New York 10021

Research Project on Energy and Economic Policy

Dear Alex:

Thanks for your note. I look forward to meeting
with you and Yehuda Hellman again soon to advance our plans.

Sincerely,



Kenneth J. Bialkin

KJB/mr

file

April 20, 1977

Mr. Kenneth J. Bialkin
1 Chase Manhattan Plaza
New York, New York

Dear Ken:

It was nice meeting you. I am grateful to you for taking the time to meet with me.

I expect to be in Washington on Monday and am trying to arrange a meeting with Dr. Hordes. Of course, I will be in touch with you soon after I have had a chance to chat with Hordes.

With repeated thanks and warmest regards, I am

Sincerely,

Alexander M. Schindler

April 6, 1977

Mr. Walter P. Stern
Capital Research Co., Inc.
299 Park Avenue
New York, N.Y. 10017

Dear Wally:

I have your note of March 29th and want you to know that I am in the process of exploring possibilities for aid in connection with the Research Project on Energy and Economic Policy. I'll be in touch with you in a week or so, hopefully with some positive word.

By the way, there was no enclosure with your letter. I would like to see the detailed list of activities and would be grateful if a copy could be mailed to me.

With kindest personal regards, I am

Sincerely,

Alexander M. Schindler

bcc: Mr. Laurence Tisch

CAPITAL RESEARCH COMPANY

INCORPORATED

LOS ANGELES • NEW YORK • GENEVA

299 PARK AVENUE
NEW YORK, N.Y. 10017

March 29, 1977

WALTER P. STERN
Senior Vice President

Rabbi Alexander Schindler
President, Union of American Hebrew Congregations
838 Fifth Avenue
New York, NY 10021

Dear Rabbi Schindler:

Several people have suggested that I keep in touch with you on our anti-boycott activities and other activities of the Research Project on Energy and Economic Policy. I am enclosing a brief sheet which details some activities that we hope to go into. I have about half the money raised for a \$50,000 budget this year. I wonder if you might have any ideas on where else to go?

Kindest regards.

Sincerely,

Wally

WPS:L

Tell him am ~~going~~ exploring some possibilities now.
Will be in touch with him in week or so.

Send copy of Wally letter to Larry Rich, F.Y.I.

Thank Larry for party with me. Tell him I have set
up session with lawyer friend of his. *no* *out*
on re energy.

April 6, 1977

Mr. Laurence Tisch
666 Fifth Avenue
New York, N.Y. 10019

Dear Larry:

It was good seeing you yesterday. I am grateful to you for taking time from a busy schedule to meet with me and I much appreciate your counsel.

I am seeking to arrange an appointment with Mr. Bialkin and I want to thank you for the introduction.

With warmest personal regards, I am

Sincerely,

Alexander M. Schindler

Encl.

Steven L. Spiegel
9701 WILSHIRE BLVD., SUITE 700
BEVERLY HILLS, CALIFORNIA 90212
(213) 273-8697

March 17th, 1977

Ref: 77/102


Rabbi Alexander Schindler
Conference of Presidents of the
Major Jewish American Organizations
Chairman
515 Park Ave.
New York, N.Y.

Dear Rabbi Schindler:

I am responding to your note of March 3rd. I am glad to hear that our energy papers have been helpful. I enclose a recent catalogue of all the material which we have produced. If you are interested in receiving any others, please feel free to request them and we will be happy to send them immediately.

I hope that we can continue to be of assistance and I thank you for your kind note.

Sincerely yours,


Steven L. Spiegel

SLS:rr

Encl.

LIST OF COMPLETED PAPERS AND OTHER MATERIAL

- * 1. David Aviv - Energy Independence Feasibility in the Next 10 Years.
- 2. Sheldon Bierman - A Preliminary Review of the Relationship among Banks and Petroleum Companies.
- * 3. Seth Carus - Arab Arms Acquisition since 1973.
- * 4. Alan Dowty - The Question of Palestinian Representation: Options for US Policy.
- * 5. Alan Dowty - Memorandum - US Policy and the Palestinians.
- * 6. Samuel Fishman - The Meaning of Normalization.
- 7. Robert Freedman - Jimmy Carter, Zbigniew Brzezinski, and the Future of US Policy in the Middle East.
- 8. Fred Gottheil - An Economic Analysis of the Relations Between Israel's Balance of Payments Problem and US Economic Assistance.
- * 9. Morton Halperin - A Policy for the Arab-Israeli Dispute.
- * 10. Rita Hauser - The Palestinian Refugees: A Realistic Solution.
- * 11. Rita Hauser - A US Guaranteed Peace in the Middle East.
- 12. Jess Hordes - The Energy Crisis.
- 13. Jess Hordes - The Arab Boycott.
- 14. James Kurth - Statement before the Senate Committee on Foreign Relations.
- * 15. Jordan Paust - The Israeli Response to Terrorism.

* Formal Papers

- * 16. Nat Pelcovits - Israel at the UN: Challenge at the 31st General Assembly.
- * 17. Robert Pindyck - Low Prices or Self-Sufficiency: The Conflicting Goals of National Energy Policy.
- * 18. Itamar Rabinovich - The Lebanese Crisis: An Interim Assessment of its Significance and Prospects.
- 19. Eugene Rostow - The Safety of the Republic.
- 20. Eugene Rostow - Statement before the Subcommittee on Foreign Assistance of the Committee on Foreign Relations.
- * 21. Arnold Safer - Recommendations for US Energy Policy: The International Aspects.
- 22. Fred Singer - Domestic Resources Can Satisfy the Energy Needs of the US.
- 23. Fred Singer - Statement on Energy Security and the World Price of Oil.
- * 24. Steven Spiegel - The Arab-Israeli Dispute: A Plan of Action.
- 25. Steven Spiegel - Statement before the Subcommittee on Near Eastern and South Asian Affairs of the Senate Committee on Foreign Relations.
- * 26. Steven Spiegel - The Effectiveness of Jewish Efforts to Influence the American Foreign Policy-Making Process.
- * 27. Raymond Tanter - The Palestinian Issue: Current Trends, Prior Policies, and Future Options.
- * 28. Abraham Wagner - The Future of Step by Step.

29. Sheldon Bierman - Commentary on Aviv's Paper.
30. Sheldon Bierman - Commentary on Safer's Paper.
31. Arnold Safer - Employment and Energy Independence (Irving Trust Report).
32. Arnold Safer - Outlook for World Oil: Prices and Petrodollars (Irving Trust Report).
33. Arnold Safer - International Commodity Issues (Irving Trust Report).
34. Arnold Safer - The Emotional Side of Divestiture (Irving Trust Report).
- * 35. Robert Freedman - The Soviet Union and US Peace-Making Efforts in the Middle East.
- * 36. Harold Waller - Energy Choices for the Next Administration.
- * 37. Asher Arian - Israeli Domestic Politics and the Negotiating Process.
- * 38. Max Singer - Are the Arabs Willing to Make Peace with Israel?
- * 39. Burton Leiser - Responses to Terrorism.
- * 40. Uri Raanan - Soviet Union in the Middle East.
- * 41. Donna Divine - The Meaning of War: Lebanon, 1975-1976.
- * 42. Sheldon Bierman - An Antitrust Approach to Oil Problems
- * 43. Edward Luttwak - American Arms to Egypt: The Nato Connection.
- * 44. Noel Kaplowitz - American Foreign Policy in the Middle East: Requirements for Constructive Conflict Resolution.

45. Marvin Feuerwerger - Congress and Israel: A Look to the Future.
46. Alan Dowty - Testimony before the Senate Committee on Foreign Relations.
- * 47. Arnold Safer - World Oil: Challenges and Opportunities.
48. Max Singer - Memo on Oil.
49. Arnold Safer - Energy and Economic Policy: Constraint or Complement.
- * 50. Steven Rosen - The Dilemma of the Occupied Territories: Implications for US Policy.
51. Fred Singer - A National Energy Policy - At Last?
52. Fred Singer - Who is afraid of OPEC?
53. Eli Bergman - The American Jewish Population Erosion - Causes and Consequences.
- * 54. Shlomo Aronson - Israel's Domestic Politics and the Future of Middle East Negotiations.
- * 55. Max Singer - Modifying the US Approach to Middle East Peace.
- * 56. Zvi Gitelman - Jews in the USSR: Prospects and Policies.
- * 57. Edward Luttwak - The Sale of American Weapons and Military Services to Saudi Arabia: The Need for a Re-assessment.
- * 58. Robert Freedman - The Soviet Government and the Issue of Aid to Soviet Jewish "Drop-Outs": A Moral and Political Analysis.
59. Arnold Safer - Oil and the International Economy.
60. Fred Singer - The Limits of Arab Oil Power.

- * 61. Shlomo Aronson - Israel's Nuclear Options.
- * 62. Max Singer - Pursuing Peace in the Middle East: The Idea of Quasi-Settlement.
- * 63. Alan Dowty - International Guarantees: Historical experience and Prognosis for the Middle East.
- * 64. Alan Dowty - International Guarantees and the Arab-Israeli Conflict
- * 65. Edward Luttwak - US Arms Sales to Jordan: The Delicate Threshold.
- * 66. Alouph Hareven - The Scope of Human Contacts between Israel and her Arab Neighbours.
- * 67. Marvin Feuerwerker - The American National Interest and Assistance to Israel.
- 68. Arnold Safer - The Energy Crunch and American Diplomacy.
- 69. Mark Heller - The Fallacy of Imposed Peace.
- * 70. Yair Evron & Anne Cahn - The Politics of Arms Transfers: US Arms Sales to Egypt.

March 3, 1977

Mr. Steven L. Spiegel
9701 Wilshire Blvd.
Suite 700
Beverly Hills, Ca. 90212

Dear Steve:

I am grateful to you for the continuing flow of papers on energy and other vital matters. Thank you for sharing these. I have just been appointed to serve on the Alliance for Energy and the materials from your office will be most helpful.

With warmest regards, I am

Sincerely,

Alexander M. Schindler

With the Compliments of

Steven L. Spiegel

We would greatly appreciate your comments on this/these paper/s
as well as on other papers you have received and not yet
commented on.

Thank you !

"Oil and the International Economy"

address by: Dr. Arnold E. Safer
Vice-President, Economics
Irving Trust Company

to: National Committee On
American Foreign Policy

at: the Carnegie Endowment for
International Peace
New York City

January 27, 1977

Introduction

The world has not really adapted to the increased price of international oil improved by the cartel of oil-producing nations. The mounting international debt of many developing countries and of some industrialized nations is one important symptom of the disruptive nature of high oil prices. As long as large OPEC surpluses continue, there will be an ever-increasing burden of deficits in the oil-importing nations which must be financed through the international monetary system. Chronic international payments deficits can set off a vicious devaluation-inflation cycle, which in turn brings about high unemployment or increased protectionism--key symptoms of the failure of the economic adjustment process. Lest the seriousness of this problem be too lightly dismissed, it is important to remember that most economic historians feel that the failure of the international economic and financial system was a principal element in the Great Depression of the 1930s. Measures taken in the 1930s to defend against these deficits emphasized exchange controls and protectionist trade policies which contributed to a sharp contraction in world trade, an end to economic prosperity, and the ultimate rise of a destructive economic nationalism.

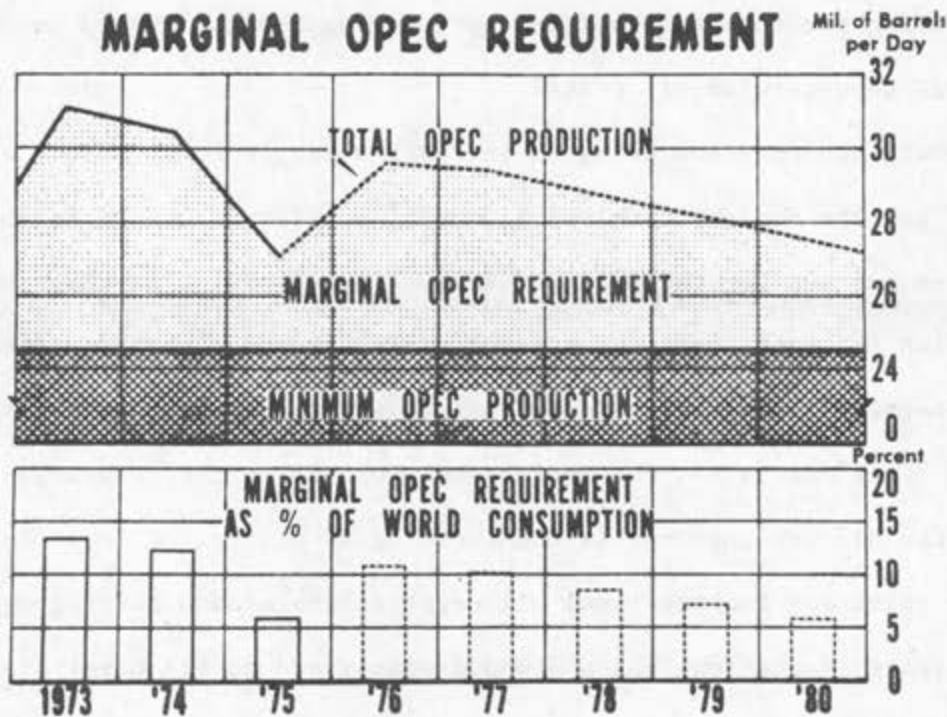
The world has learned much about economic cooperation since the 1930s, and economic history shows that many of the aspirations of individual OPEC nations cannot be achieved except at considerable expense to the rest of the world. The strategy of achieving economic development by imposing high oil prices upon the rest of the world contains certain risks to OPEC as well as to the oil-consuming nations, both developed and developing. The world recession of 1974-75 was in large part the result of the oil price shock; the slow recovery of the world's economies may be another. But it is precisely this slow economic recovery, with its limitations on increasing social goals, that may very well cause the gradual erosion of the strength of the cartel itself. It is important for both Western policymakers and the governments of OPEC to understand the nature of this process.

This economic process depends critically upon three sets of economic forces. First, the state of the oil market and the resulting pressures on oil prices. Second,

by the populous OPEC nations, it could be reduced to production levels by 1980 which even it might find intolerably low. As another alternative, if Saudi Arabian production in 1980 were held near current levels, other OPEC members would be forced to cut oil production below levels which would permit the planned implementation of economic development programs already in progress.*

U.S. international oil policy should recognize the likelihood of this natural friction within OPEC. The period ahead offers the opportunity to limit the cartel's power over the world oil market and to reach a more healthy accommodation with the legitimate aspirations of its member governments.

Chart II



Source: Historical Data by American Petroleum Institute, Projections by Irving Trust Co.

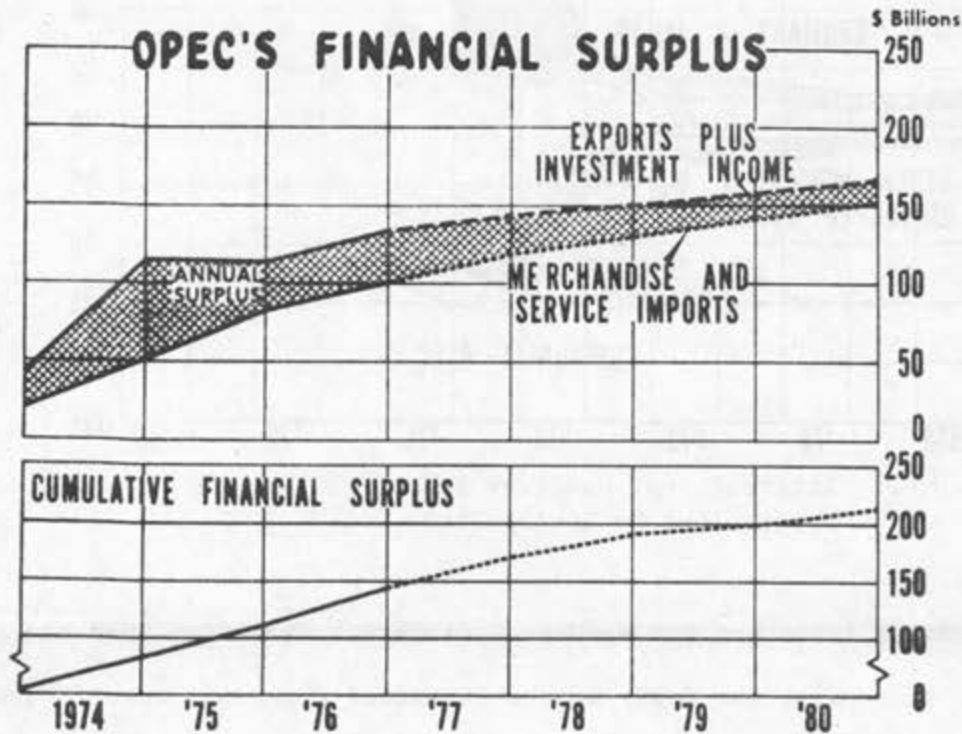
In a prior study we argued that over the 1975-80 period OPEC's minimum production level required to sustain its member countries' respective development objectives was in the

*See Table I in the appendix for a description of possible 1980 OPEC supply scenarios. Also, see "World Oil: Challenges and Opportunities," View From One Wall Street, Irving Trust Company, New York, N.Y., Dec. 20, 1976

Petrodollars

The second potential source of economic instability derives from the issue of petrodollars--of a very large potential overhang of OPEC-owned financial claims on the consuming countries.

Chart III



Source: International Financial Statistics,
Projections by Irving Trust Co.

As Chart III shows, prior to 1974 the OPEC financial surplus came to around \$16 billion, largely concentrated in Saudi Arabia and Kuwait. By the end of 1976, we estimate this figure to have risen to around \$145 billion, with Saudi Arabia alone accounting for roughly two-thirds of this total. By 1980, this petrodollar surplus will likely be over \$200 billion.*

In effect, virtually the entire surplus will be concentrated in the small population OPEC members, principally the Arab states of the Persian Gulf. At the same time, some of the large population OPEC members could very likely go into current account deficit over the next few years.

*See Table II in the appendix for the detailed assumptions behind this forecast.

Chart V

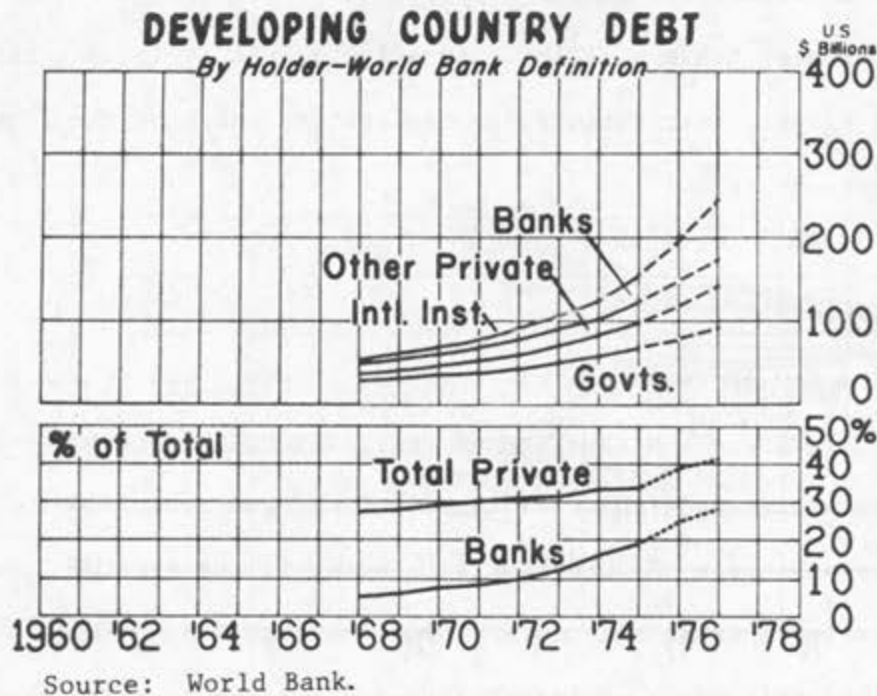


Chart V shows that by the end of 1976, the cumulative outstanding developing country debt is estimated to have exceeded \$250 billion (ca. \$200 billion for the non-OPEC LDC's) with approximately \$70 billion owed to commercial banks. For the past three years, this group of countries has required over \$40 billion annually in external financing, with roughly \$30 billion stemming from current account deficits. Prospects for 1977 appear to be about the same, with another \$40 billion or so added to the total.

This annual flow of resources to the developing nations totals about 1% of the non-communist world's GNP. While in and of itself this figure may not be excessive, there has been a concentration of this flow in the form of increased loans from private Western banks to the developing countries, estimated to be almost 30% of total developing country debt at the 1976. The six largest U.S. banks at the end of 1975 had nearly \$12 billion of non-guaranteed loans outstanding to 15 less developed countries, representing about 5% of the combined assets of these banks. While this may not be an inordinate level of risk at present, a further expansion of private sector lending to the developing countries could pose problems for the future.

time, will increase its imports of raw materials from the LDC's, thereby generating a strong second order effect upon exports of the deficit countries.

This two-pronged approach of restraint in the deficit countries and stimulus in the surplus countries may help to gradually restore a measure of equilibrium to the international payments mechanism. The petrodollar recycling is basically a credit flow, a series of loans to carry the deficit countries through their period of adjustment. That, however, could be the "fly in the ointment", because there may be nothing temporary about the growing deficits of the weaker countries, as long as OPEC continues to run these very large balance of payments surpluses, stemming from the high and still rising price of oil. There is reason to believe that increased stimulus in the stronger countries will not lead to an improvement in the weaker countries. What could happen is an increased world deficit vis-a-vis OPEC, as stronger economic growth worldwide in both the surplus and deficit countries generates a sharply increased demand for oil. As the U.S., for example, stimulates its economy, it may lead to some increase in the demand for goods and services in the deficit countries, but also to an increase in the demand for Japanese goods. At the same time, both Japan and the U.S. will increase their oil imports. As the LDC's increase their raw material exports to both the U.S. and Japan, they could in fact end up with even higher deficits as their economies will require both more oil and more industrial goods, both at even higher prices. In other words, the proposal assumes a fairly constant OPEC surplus to be redistributed among oil consuming countries. Unless there is a greater effort at energy conservation, the increased tempo of economic activity and world inflation could generate an even larger OPEC surplus and leave all oil consuming countries with an even larger petrodollar deficit.

Another problem with the proposed course of international economic policy involves the value of the dollar in foreign exchange markets. If the U.S. promotes an increased balance of payments deficit, the international value of the dollar could weaken, in the absence of offsetting capital flows. The cost of U.S. imports would rise, as it will take more dollars to purchase foreign goods from other countries. The result would be increased inflationary pressures in the domestic U.S. economy. This effect could become even more pronounced if the Germans and the Japanese do not go along with the U.S. in trying to reduce their payments surpluses. If the yen and the mark were to strengthen substantially vis-a-vis the dollar, the

element in this economic readjustment, which I believe is almost as vital as the stronger military capability which many observers now perceive as necessary. From both the economic and political points of view, our leadership of the Free World is being challenged because our relative domestic strength has been eroded. And unless we repair that damage over the next few years, much of the international economic dialogue will only add to the confusion of an already skeptical public.

Table 2

OPEC CURRENT ACCOUNT AND FINANCIAL SURPLUS

	<u>1974</u> (actual)	<u>1975</u> (actual)	<u>1976</u> (est.)	<u>1977</u> -----	<u>1978</u> (forecast)	<u>1979</u> -----	<u>1980</u> -----
Oil Production (bil. bbls.)	11.1	9.9	10.8	10.7	10.4	10.2	10.0
Domestic Use (bil. bbls.)	.5	.6	.6	.7	.8	.9	1.0
Oil Exports (bil. bbls.)	10.6	9.3	10.2	10.0	9.6	9.3	9.0
Oil Prices (\$1 bbl.) (1)	9.45	10.20	11.15	12.04	12.64	13.27	13.93
Value of Oil Exports (\$ bil.)	100.1	94.9	113.7	120.0	121.3	123.4	125.4
Other Exports (\$ bil.)	11.0	12.0	13.0	15.0	18.0	21.0	23.0
Total Exports (\$ bil.) (2)	111	107	127	135	139	144	148
Merch. Imports (\$ bil.)	36	59	70	82	90	100	110
Service Imports (\$ bil.) (3)	15	23	30	36	40	41	42
Investment Income (\$ bil.)	4	6	7	9	11	15	18
Current Account Balance(\$ bil.)	64	31	34	26	20	18	14
Cumulative Financial Surplus (\$bil.) (5)	80	111	145	171	191	199	213

(1) Government Take, Average OPEC

(2) Rounded to nearest billion

(3) Including Transfers

(5) Year-End, 1973: \$16 billion

Table 2 translates our forecast of OPEC oil production into OPEC oil revenues. We have assumed an increase of 8% in oil prices in 1977 and a 5% per year growth thereafter to 1980. As a result of the expected decline in OPEC volume, therefore, OPEC oil revenues are projected to grow only marginally through the remainder of the decade. With a continued rise in merchandise and service imports, albeit not as rapidly as had been expected, OPEC is likely to experience a decrease in its annual current account surplus through 1980. The cumulative financial surplus, therefore, is expected to peak at around \$200 billion in the 1979-80 period.

THE LIMITS OF ARAB OIL POWER

Introduction

The proper conduct of foreign policy has always depended on superior intelligence concerning the intentions and capabilities--not only of unfriendly powers but also of allies. For the United States, which in the past has been reasonably independent of imported natural resources, the supply of oil has assumed crucial importance. For this reason we need a careful assessment of Arab oil power, and indeed of the power of all oil-producing nations. Unfortunately, so much fiction has been added to the facts, that the crystal ball has become quite cloudy. It is essential to have a correct perception of what oil power consists of, what can and cannot be done by oil-producing nations, so that we will neither be pressured or blackmailed, nor become overconfident and arrive suddenly at a situation which can jeopardize national security. The purpose of this essay is to make a modest contribution towards illuminating such misconceptions as: (1) OPEC can raise the price of oil without impunity; or (2) the Arabs can declare an embargo and cut off oil to the United States; or (3) the Arabs can stop the recycling of petrodollars, ruin our banking system, leave us with a huge trade deficit, cause unemployment, inflation, etc. etc. There are some grains of truth in all these statements, but they are very small grains: mostly, they are incorrect assessments of Arab oil power. If we believe in and act in accordance with such assessments, we will pay a heavy price, both in dollars and in political coinage.

S. Fred Singer, Professor, University of Virginia. Partly based on studies performed for the U. S. Treasury under Order Number ES-318.

according to some formula. The success of OPEC would then depend on each country sticking to the assigned cutback, and not cheating by selling oil under the table at a lower price. Once price cutting starts, the other countries would of course follow suit, and the effect of the price increase would be more than eliminated. In fact, the cartel would be seriously weakened politically as well.

Perhaps OPEC knows all this, because they do not operate as a cartel, but rather as a modified monopoly. What happens is that a very few countries, those with large reserves but with small populations and therefore little need for cash, form the core of the cartel: Saudi Arabia and the Emirates of the Arabian peninsula, including Kuwait, Bahrain, Abu Dhabi, as well as (sometimes) Libya. The cartel core, mainly Saudi Arabia, has so far been willing to absorb all of the production cutbacks.* The core countries might be willing to absorb the additional 2 1/2 mbd cutback by reducing production. Naturally, when they do this, they will lose a great deal of current income, although they will retain more oil in the ground. But there is a time value to money, and it therefore pays for them not to reduce their current income by too much. Also, their needs for financial resources have risen considerably in the last three years because of an ambitious development program and an even more ambitious program of buying modern arms.

How much of a cutback might they be willing to accept? A straw in the wind is the recent Saudi-ARAMCO agreement which sets a minimum level to Saudi production of 6 mbd, compared to a June

*For example, in June 1976 Kuwait had 46% of its production shut in, but Iran only 6%. The average for all of OPEC was 21%.

Limits to Oil Embargoes

Now that we have demonstrated that there are rather tight limits to the world price of oil, it should be obvious also that the price cannot be raised, let us say just to the United States. But what about cutting off the supply of oil to the United States? The so-called embargo which was attempted by some of the Arab countries during the winter of 1973- 74 did not succeed in cutting off oil to the US. Its chief effect was to accelerate the OPEC price increase, perhaps by a few months, over what it might have been in the normal course of events.

It is interesting to study the psychology of such an embargo. Long before the October 1973 war in the Middle East, embargoes were prominently discussed by the mass media. During the summer of 1973 NBC even ran a three-part special which promoted the idea and featured the glowering visage of King Faisal. Yet at the very same time, the Saudi oil minister, when interviewed by the Lebanese journal Al Hawadess, was quite explicit and honest in stating that an embargo against the United States made no sense, since it would only hurt other countries. Nevertheless, the public press and television continued with its campaign that an embargo could and would be placed against us. The Arabs apparently decided that if we conceived an embargo to be possible and feared it, then they would institute one and take advantage of this fear.

When the embargo finally took place, it turned out that the shortages that developed were mainly due to the poor allocation by the federal government of gasoline and other oil products.

of our total energy supply. But in the future we will also have available a strategic stockpile of oil of around 150 million barrels minimum, as specified by law. This is equivalent to a 60-days supply of Arab oil. When superimposed on a general 30-day supply reserve for all oil, this gives us therefore a reserve of about 6 months against an Arab embargo.

If under these circumstances the Arabs decide to embargo the United States, they could take two different courses of action. One would be not to change their production rate, but rather insist that their oil does not go to the United States. This case is fairly simple to handle: if their oil goes to other countries, it will be excess to their supply and the other countries will then be able to make available oil from non-Arab sources to the United States. It might take a while to readjust shipping schedules, and there could be short disruptions, but the strategic stockpile would handle this problem very nicely. Of course, this analysis assumes the Arabs do not produce the largest fraction of world oil. This situation is likely to hold until the year 2000, after which Saudi Arabia may be one of the few countries left with enough oil to support a major export program. Then again, Saudi Arabia may not be around by the year 2000, so that our concern is strictly academic.

A more likely course of action for Saudi Arabia would be to declare an embargo against the United States, and then cut its production by an amount corresponding to US imports. But even under those circumstances, it would still not be possible to keep oil away from the United States. The available oil would flow to

But an embargo is unlikely for other reasons as well. There has been developing a growing interdependence between the Arab countries, chiefly Saudi Arabia, and between the United States. Much of the Arab money is invested in the United States. The build-up of the infrastructure and of the armed forces depends on shipments of supplies from the US, on the provision of technical personnel, spare parts, and so on. Most important, Saudi Arabia has no real protector in the world except for the United States. One cannot conceive of any country that would go to the aid of Saudi Arabia if they were attacked from the outside, or infiltrated by Communists and subjected to subversion and even takeover.

Of course, all this analysis assumes that Saudi Arabia will act rationally. It assumes also that irrational elements, such as terrorists, will not gain the upper hand. But the futility of giving in to terrorists is so well known that little more needs to be said on this point.

Limits to Financial Power

One of the most misunderstood problems is the recycling of petrodollars. At one time it was feared that the Arabs would shift their deposits from bank to bank and thereby create havoc within the Western banking system. This fear has now disappeared. Instead people seem to be afraid that the oil-importing nations as a group will build up large trade deficits with respect to OPEC. Actually, nothing could be more desirable because this would mean that the money would be put out of circulation. They would give us oil and we would give them paper. We should not be afraid of that remote possibility but welcome it.

Finally, the Arabs use much of their money to buy goods. If they stopped buying from the United States and switched to Europe and Japan, then undoubtedly we would lose much business. But such a switch is not very likely. Commercial relations are now set up with engineering firms and with suppliers, which are difficult to break. Making new arrangements will cost a great deal of money and will cause great delays. Once started with a particular supplier, it becomes quite expensive to break the relationship and establish a different one. This holds even more true for arms shipments. On the margin, however, some business could certainly be lost by the US, and would be gained by Europe and Japan. But their more favorable trade balance in turn would mean that they would buy more from the United States than they are buying now. While one cannot guarantee exact equality, to a rough order of approximation, the money flows and trade flows may not change even if the Arabs declare a trade embargo on the United States. For the same reason also, the United States can afford to fight the Arab boycott against American firms which trade with Israel. In most cases American goods are so desirable that the boycott office ignores its principles and simply goes ahead and trades anyway. Individual firms, particularly smaller firms, may get hurt, but the United States business community as a whole would be hardly affected. But of course, for everyone who loses, somebody will gain. However, it is usually the ones who lose who create the political pressure on the Congress and on the State Department.

Otherwise there is probably not much we should do about the OPEC cartel. There is not much point in negotiating, cajoling, or threatening them. Counter-boycotts and counter-embargoes will not work, and price agreements are probably counterproductive. Nor should much be expected from the remedies that have been variously proposed, such as breaking up the oil companies, substituting the U. S. government as the sole importer, and similar schemes. They will not help as long as the cartel core is willing to reduce its production in order to maintain a high world price.

Our real answer is to stop talking about breaking up OPEC and work instead on the really tough political problem of straightening out our domestic energy policy. The principal tasks are to deregulate at least the price of new natural gas and to deregulate the price of oil. The latter is currently held at three different levels, a controlled price for old oil, a higher controlled price for new oil, and an uncontrolled price from stripper wells. This pricing scheme is providing the wrong signals and incentives to oil producers as well as to oil consumers. For example, as a result of the 3-tier price system a program had been set up to equalize the price of oil to domestic refiners some of whom import high-priced uncontrolled oil. In essence, the program subsidizes the price of oil to the consumer, and subsidizes also the import of oil from the OPEC cartel, all of which is completely counterproductive to our aim to weaken the cartel price. Clearly, it is difficult to ask the consumer, be he an industry or a household, to conserve oil when at the same time the government is subsidizing the price. While admittedly difficult, it should be possible to work out a

conservatively estimated as being worth over 2 trillion dollars-- and they present a tempting target to assorted radicals and ambitious militarists, from both inside and outside of Arabia.

In this situation, the presence of the Arab-Israel conflict cuts both ways. It certainly provides an irritant towards better relations between Islamic nations and the United States, Israel's chief supporter. But the mere existence of a strong Israel has also exerted a stabilizing influence in the past--and perhaps even more so in the future. Even before the huge rise in oil prices in 1973, President Nasser of Egypt had launched a military operation in Yemen, certainly with the aim of eventually taking over the oil wells of the Arabian peninsula. This scheme was aborted by the Israeli victory of 1967. The presence of Israel has also prevented a takeover of Jordan by Syria in 1970 and a linkup between Egypt and Syria, which could have placed a Soviet ally in a position to block European access and U. S. access to the Arabian peninsula. At the present time, things are in a fluid state, subject to a peace agreement between Israel and its neighbors. For the time being at least, the Sin ai peninsula is in friendly hands and accessible to the United States, in case it should become necessary to supply direct aid and assistance to Saudi Arabia from the Mediterranean. But this situation may not long prevail if Egypt regains the Sinai and were to again become a Soviet client state.

The large arms purchases by Saudi Arabia may be as destabilizing as they are stabilizing, in that they may encourage internal subversion by dissident elements or by ambitious military men who would like to take over the reins of power. It is estimated that the indigenous Saudi population is only 4 million people, and that

will be multi-millionaires with fortunes stashed away abroad. When the final coup comes, we should offer them the possibility to emigrate to the United States and become citizens. At that time they would become subject to the same kinds of tax laws as other U. S. citizens, which would allow us to repatriate at least some of the money now being paid out for oil. Of course, it may never come to this. There are some specific steps which could and should be taken now, which would serve to protect the existing regime in Saudi Arabia and make it, and the United States, more secure. But even the possibility of this scenario should provide a strong incentive for the Arabs to make concessions to the United States, rather than the other way around.

With the Compliments of

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as well as on other papers you have received and not yet
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Thank you !

THE CASE FOR HASTENING THE BUILD-UP
OF A STRATEGIC OIL STOCKPILE

Eugene Bardach
Graduate School of Public Policy
University of California, Berkeley

It is now three and one-half years since the Arab oil-producing countries embargoed petroleum exports to the United States. The Federal Energy Administration (FEA) has estimated that this embargo cost the economy \$10-\$20 billion. Since we are now considerably more dependent on foreign oil imports than we were during the 1973-74 embargo, a major supply disruption would be even more costly. Yet we do not now have even one barrel of oil set aside in a stockpile that would buffer the economy against such a catastrophic disruption.¹

It took Congress over a year and a half from the inception of the 1973 embargo to pass the Energy Policy and Conservation Act, which authorized the FEA to establish a Strategic Petroleum Reserve (SPR) containing a 90-day supply (about 500 million barrels) of crude oil and petroleum products by 1982. Intermediate milestones designated by the legislation were 150 million barrels by December 1978 (the so-called Early Storage Reserve) and 325 million barrels by December 1980. The FEA was also mandated to acquire the first ten percent (50 million barrels) by June 1977. In December 1976 the FEA published its SPR plan, in which it stated that the June 1977 goal would not be met "because of technical requirements, environmental hazards and high costs."² As for reaching

¹Industry inventories normally are large enough to substitute for 120 days' worth of oil imports, but, these inventories should be counted only as a buffer against normal commercial disruptions, not abnormal political ones.

²Federal Energy Administration, "The Strategic Petroleum Reserve Plan in Brief," p. 3.

the rest of the milestones on time, the FEA report promises little. Although capacity for Early Storage of 240 million barrels "will be developed," the FEA only "will endeavor" to fill this capacity to 150 million barrels by December 1978. Similarly, the agency "will endeavor" to complete the storage program on a schedule "essentially consistent" with the 1975 Act. In view of the fact that the 1977 milestone will be missed, and that the FEA was six months late publishing its SPR Plan, the promise to "endeavor" is not reassuring.

On the brighter side, President Carter and his advisers appear concerned not only to adhere to the original schedule but to accelerate it. The President's revisions in the Ford budget call for 250 million barrels to be stored by December 1978 and 500 million barrels by December 1980. The political magnitude of this decision can be calibrated by noting the difference in the relevant budget estimates for fiscal 1978: \$1.7 billion in the Ford budget and \$3 billion in the Carter budget. In addition, according to the Wall Street Journal, "sources said that Mr. Carter is considering, and probably will propose in his national energy policy this spring, enlarging the total stockpile program. Officials said that doubling the envisaged stockpile to one billion barrels of oil is being seriously considered."

No one quarrels with the concept of a strategic oil stockpile to deter a future embargo and to reduce its economic impact should deterrence fail. But a stockpile is expensive. Critics seem to think it is another one of those luxurious and unaffordable concepts like "equality" or "justice" or "strategic nuclear superiority." The FEA estimates the cost of construction and land acquisition for the stockpile at \$1.38 to \$1.65 per barrel, and this is the cheap part. To fill it with oil will cost anywhere from \$11 to \$14 per barrel, bringing total outlays for a 500-million-barrel SPR to over

\$7.5 billion.

Doubling the size of Reserve would presumably bring the total to nearly \$15 billion.

Of course, budgetary outlays are in a very important sense misleading. Oil in the Reserve does not evaporate. It sits around until one day, perhaps many years in the future, we no longer fear an embargo. At that time, the oil is sold off and the initial outlays are, in effect, recouped. If the sale price turns out to be lower than the acquisition price, the government sustains a capital loss; conversely, if the sale price is higher, the government receives a capital gain. In the meanwhile the only predictable and certain costs are the costs of construction and land acquisition (\$1.50 per barrel, say) and the interest foregone on the initial capital outlay. If the interest rate is ten percent, and the purchase price \$14 per barrel, the annual storage cost is only \$1.40 per barrel plus amortization of the initial setup costs of \$1.50, roughly \$.20. Calculating the stockpile costs in this way implies, therefore, an annual expenditure of about \$1.6 billion for a billion-barrel reserve. This is a lot less than the alarming figure of \$15 billion. But the \$1.6 billion expenditure does continue year after year, as long as we hold the stockpile.

It seems certain that President Carter's plan to accelerate the storage schedule and to double the eventual stockpile size will be resisted in some quarters as too expensive. A February 1977 report by the General Accounting Office on the SPR program, entitled "Issues Needing Attention in Developing the Strategic Petroleum Reserve," focussed mainly on financial issues and ignored all those issues pertaining to schedule slippages. It also questioned the need for a 500-million-barrel government reserve in addition to normal industry inventories. Although the GAO report raises legitimate questions, its emphasis on cost-cutting probably portends trouble

for the Carter plan in Congress. In the following section I shall argue that, while the costs of a 180-day reserve are not small, they are almost certainly worth paying.

First, we shall do some simple calculations to show that the benefits far exceed the costs. Next, we shall examine some alternative means of attaining these benefits and show that none of them is likely to be a complete substitute for a stockpile, though any of them could, and should, affect our conception of the optimal size of a strategic oil stockpile.

The Benefits of a Stockpile

The benefit of a stockpile can be construed as the economic damage that would be averted in the case of an embargo, with this sum discounted by the improbability of such an embargo occurring. Thus, if an embargo of six months' duration were expected to cause, say, \$64 billion damage, we would have to discount its chances of occurrence to less than five percent per year before we would conclude that a six-month stockpile was not worth its cost of \$1.6 billion per year. If the risks of such an embargo are greater than five percent per year, the stockpile is worth it. Of course, varying the parameters in a hypothetical embargo would not affect the logical validity of this procedure. For instance, if an embargo lasted a year, the total economic damage might be, say, \$200 billion. Drawing down a six-month (billion barrel) strategic stockpile at a rate that stretched it out over the entire year might reduce this loss to \$100 billion. In that case, one would have to believe that such an event was more than 98% improbable to make a six-month stockpile look like a bad bargain.

What sort of damage estimates are realistic? Such estimates are bound to be crude. However, the FEA has an elaborate computer simulation model

that gives us some numbers to conjure with.

The economic cost to the GNP from a six-month embargo in 1977 would be \$42 billion. In 1980 it would be \$55 billion (in 1977 prices) if the world price of crude oil were to drop to \$8/barrel, and \$16 billion if prices remained just over \$12/barrel. If the price of oil drops to \$8/barrel, the cost in 1985 would be approximately \$170 billion.³ And, of course, if the embargo is longer than six months, the cost would be higher.

No matter how fuzzy the estimates of potential damage by embargoes of different durations, it is easier to make these estimates than to assess the probability of an embargo (of whatever duration). It is hard to imagine an Arab oil embargo triggered by anything but another Arab-Israeli war. A selective embargo of one nation--the United States, for instance--is not feasible because the oil exporters simply cannot monitor the transshipment of oil, nor prevent it if they could monitor it. Hence, "an embargo" can only mean a general embargo against all importing nations in the OECD bloc (and Japan), and this drastic action is plausible only if there is another Arab-Israeli war. Yet, in the event of such a war, I think the odds strongly favor a general embargo, whether or not the U.S. intervenes to help Israel as in 1973. All that is needed to trigger the embargo is Arab military defeat, political stalemate, or psychological humiliation. Since another Arab-Israeli war in the next ten years, say, is very probable if not virtually certain, a betting man would surely wager on another embargo. Indeed, one plausible scenario would have the Arab nations locked in a political stalemate with Israel over the next two or three years and then starting a war they know they will lose as a pretext for imposing another oil embargo. If oil is their strong suit, why should they not create opportunities to lead to it?

In the absence of counter-measures, therefore, a general oil embargo is predictable in the next decade. Against the threat of an oil embargo no counter-measure could be better adapted than a strategic reserve.

³Thomas H. Tietenberg, *Energy Planning and Policy*, Lexington, Mass.: D. C. Heath, 1976, p. 124. Table 9-1. Tietenberg presents his estimates in 1975 dollars. I have increased his figures by approximately ten percent to convert

It pits oil against oil, barrel for barrel. In fact, it is such an excellent defensive weapon, at a mere \$1.6 billion per year we can hardly afford not to buy it.

The Cost-Effectiveness of a Stockpile

Now this conclusion would not necessarily hold up if there were some less costly weapon that were equally effective, e.g., increased domestic supply, imports from more secure sources, or conservation.

We can also take certain

during-the-embargo emergency measures like fuel-switching (oil to coal in power generation, particularly), stand-by fuel production, and mandatory car-pooling.

It seems doubtful that accelerated domestic supply, conservation, and stand-by measures can reduce our vulnerability to an embargo very much in the next decade or so, ^{however.} The underlying difficulty is that the demand for oil is very brisk during prosperous times, and conventional domestic sources are declining. Within the past year imported crude oil and refined products exceeded domestic supply for the first time. Indeed, imports rose about 25 percent.

Some of these measures, moreover, have costs of their own. Domestic supply inevitably means increased environmental degradation, though of course people can disagree on how much and on its significance. Conservation can mean money-saving steps like home insulation, in which case these measures are desirable. If, however, "conservation" also means unpopular modifications in style of living or levels of consumption, it is not costless, and we might be better off paying for whatever size stockpile permits us to import whatever volume of oil we really want. In this context, I use "might" advisedly. It is hard to know the truth of the matter. Perhaps the best way to find out is to finance the strategic reserve through a tax on imports. In that way consumers

of imported oil would actually end up paying for most of the stockpile; and if they did not want to pay so much, they would always have the option of importing less or none at all.⁴

Of course, reducing our import-vulnerability is only one means of reducing the expectable damage from oil embargoes. Another way is to blunt the will of the Arab oil exporters to resort to an embargo even in the event of another war with Israel. To a degree, this has occurred already. The importing nations are the sheiks' partners in a profitable trade, the valued suppliers of ~~technology~~^{their} and foodstuffs, the guardians of their financial assets, and the guarantors of oil-related debt accumulating in the poor countries. As Sheik Yamani so often reminds us, the Arab oil exporters have a large stake in Western economic well-being. Nevertheless, we must wonder if any or all of these prudential and utilitarian considerations would weigh very heavily in the face of deep political frustration and psychological humiliation. For the sake of Islamic glory and honor would not the sheiks be willing to sacrifice a few billion dollars? Anyone who doubts it should remember that the United States spent far more, in lives, treasure, and spirit, in the vain pursuit of "peace with honor" in Vietnam.

Still in the air, too, is the threat of military intervention in case of imminent "strangulation" of the West, as former Secretary Kissinger put it. The more seriously the Arabs take this threat, the less likely an embargo, and the lower the size of our required stockpile. Herein lurks an irony, however. Because the Arab counter-threat to an invasion is the threat to disrupt oil flows by sabotaging the oil fields and loading docks, a credible invasion threat must be backed by a large stockpile to hedge against such

⁴Another nice feature of a tax on imports is that, to the extent it is shifted backward onto producers rather than forward onto consumers, the parties who are at the root of our problem are paying for its solution.

a disruption. More precisely, the stockpile must be large enough to tide us over the period while Western petroleum engineers and construction crews repair the damage, a job that would take some six months according to plausible calculations.

The Political Dimensions of a Stockpile

Because a stockpile--whether or not accompanied by a military threat--is such an excellent deterrent to an embargo, if we have a large one we can be virtually assured that it will never have to be used. More accurately, it will never have to be used as a defensive economic weapon. However, it could have plenty of uses as an offensive political weapon. We could feel a lot freer to assist Israel militarily and politically. We could try to force the price of OPEC oil back down to some tolerable level or, better still, break up the cartel. We could also exert pressure on our allies to create more adequate oil stockpiles of their own. And, finally, the very act of acquiring the stockpile is a signal to all other nations that we are determined not to give in to blackmail or to retreat from our historical responsibilities in world affairs.

Unfortunately, the political debate over whether to enlarge the stockpile and to accelerate its acquisition has the potential to signal fecklessness as well as determination. The GAO report, viewed in this context, is harmful--not, of course, for what it says but for what it fails to say. One can only hope that cost-conscious critics of the SPR program, and of President Carter's likely proposal to expand it, will not be too audible. Foreign leaders will no doubt follow the course of the forthcoming debate with care, for it will probably reflect fairly accurately the present state of elite opinion on the future American role in foreign affairs.

MARCH 21, 1977

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WHAT'S IN IT FOR US?
AMERICA'S NATIONAL INTEREST IN ISRAEL

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Aaron Wildavsky

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WHAT'S IN IT FOR US?

AMERICA'S NATIONAL INTEREST IN ISRAEL*

For friends of Israel, America has a self-evident national interest in giving it support: Israel is worthy because, well it is worthy-- beautiful, benevolent, and brave. There is no need to demonstrate whether or why Israel fits into America's national interest since it is assumed by those friends that natural affinity binds the two nations together. For some others, however who are not necessarily enemies, just not firmly friends of Israel, the perspective is different. Sentiment, claim those voices, is no substitute for substance. Israel is outnumbered in the Middle East. It is poor while its neighbors grow rich. It is ringed, if not enveloped, by hostile forces. Israel lacks oil because it is badly located. America would profit materially by being on the good side of the Arabs; it has nothing to gain from Israel. America's interest in Israel, they say, is idealistic -- the kind of interest that cannot survive without a material base. Thus, to borrow a phrase from Trotsky, Israel's opponents consign it to the dung-heap of history.

Supporters take Israel's importance to America's national interest for granted, while its detractors insist that the United States cannot afford to back a losing cause. One side thinks it unnecessary to give reasons, while the other believes no good reasons exist. One side acts as if ideal interests (liberty, dignity) were their own justification, while the other insists that without a material base ("How many divisions has the Pope?" as Stalin was reported to have asked) America can have no national interest in Israel.

Is there an American national interest in Israel? Failure to provide answers may be positive--American interest is self-evident, thus

* I am indebted to Robert Crowe for research assistance.

accounting for automatic military aid. Or, answers may not be given because there are none; this may explain a by-now familiar phenomenon during crises: effusive expression of support for Israel followed by hesitation and doubt -- as if the original act were impulsive rather than grounded in firm principle, based, perhaps, on political expediency rather than on national interest. It is long past time, then, for the question of America's national interest in Israel to be raised to a conscious level. Is there such an interest? If so, what kind of interest? Under what conditions is which type of support justified?

Interests

Interests are not wishes, lists of things it would be nice to do. Interests are not made up of disembodied ideals or objectives. Nor can interests be material instruments without aims, such as defending ourselves with (mis)guided missiles without knowing or caring about their impact. Material instruments and ideal objectives combine to create interests through actions: We learn what we ought to prefer by finding out what we can get; we discover what we can do by learning what we cannot. Conquering Canada may be feasible but runs counter to our ideals. Liberating Eastern Europe or freeing Tibet may be ideals but we lack the material resources to accomplish them. To act on interests involves negotiating between what is desirable and what is doable. Ideal and material interests (or, objectives and resources), then, stand together by combining what is possible with what is desirable. Or, put it another way: Interests can be defined as programs of action which join resources (as means) to objectives (as ends). Our interests are embedded in

our actions. When we ask about America's national interest in Israel, therefore, we ask whether there are courses of action which make it worthwhile for the United States to support Israel.

Speaking of nations calls to mind the word "national" that precedes interests. By national I mean a widely shared interest, one that is either recognized by a majority or that can be argued to benefit most citizens. Is there, in these terms, an American national interest in Israel?

Criteria for American National Interest in Israel

To become operative, interests must be embodied in actions. In order to choose among actions, we need criteria to let us identify policies that serve American interests and to rule out those that do not. Now criteria may be plausible or helpful, but not necessarily correct or true. In action, interests embody values -- and values are not neutral. No particular set can be absolutely right or wrong, therefore, since criteria, like interests themselves, necessarily are subjective. We are looking for criteria that will be helpful -- few enough to be manageable; focused, so they are useful in distinguishing among alternatives; and congruent with American values, in order to command general support. I propose three to help us decide what kind of policies best serve America: (1) America's interest in its own self-worth (legitimacy); (2) its interest in having allies (solidarity); and (3) its interest in being able to choose its own future interests (autonomy). First I will discuss these; later I will use them, in the context of peace proposals, to help us choose policies that are in America's national interest.

The first criterion, legitimacy, suggests that any reason for rejecting Israel must not apply equally well to the United States. If Israel is judged unreliable because governments there change, it should be remembered that the United States also, as a democratic regime, practices alternation in

office. If Israel is deemed unworthy because its founders displaced native inhabitants, how much greater must have been our offenses in regard to Indians and Mexicans. For we Americans to disown Israel on this account must be to delegitimize ourselves.

Consider America's sense of its own self-worth. Opposition to Israel would involve rejection not only of our past pledges of support, but also of the deep symbolic connections that exist between the two nations. I do not refer only to the ties of American Jews and Israelis. No, I refer explicitly to sentiments, ideals, and values common to all. America would be casting aside the birthplace of Judaism and Christianity. It would be rejecting a country whose immigrant origins and political practices are close to its own. If it were accepted, furthermore, that no nation whose founders were born elsewhere could be judged as legitimate, there would be even less rationale for putting America's legitimacy above that of Israel, whose people have been in Palestine from the beginning of recorded history.

The second criterion, solidarity, implies that arguments against Israel must not be such as to apply equally well to most of America's allies, for then we would not be talking about America's lack of interest in Israel in particular, but about why the United States did not need (or should not want) allies in general. For example, opponents of Israel claim that Israel does not possess substantial military forces; would this not rule out Japan and Canada? Or, the argument is made that there are no contiguous borders between the United States and Israel; with the exceptions of Mexico and Canada, what allies would that leave us?

What would happen if the United States, deciding it had no interest in Israel's survival, let it be known that it would not intervene (or hinder the Soviet Union from intervening) in the next Middle East war? What

would America be saying to its other allies? Which of them would feel safe if the same principles used for abandoning Israel were applied to them? If democracy and a common cultural heritage were not enough, what would it take to stay on America's most-favored-nation list? Greece and Italy, for instance, have little going for them other than cultural affinity and awkward attempts at democratic politics. The United States gives them more than it gets in economic support; and their reliability, in terms of political cleavages, is suspect. Britain is better off politically but not economically. Small fry, like Belgium and the Netherlands, acceptable on those grounds, are not rich enough to be worth protecting on that ground alone. How about Canada, Japan, and Norway? Serious questions can be raised about each. Norway has oil but can hardly defend itself; Japan is rich but far away, hence difficult to defend; and Canada is close but suffering from internal political conflict.

Nevertheless, even if a few nations did merit American support, would they, alone and exposed, think it worth carrying on? In the absence of recent experience it is easy to underestimate the demoralization of being left with few culturally compatible nations in one's world. In such circumstances, might not Americans themselves begin to question the worth of their own existence? The choice of cultural isolation is not one America should want to make. The moral of the story is all too clear: if the United States tries hard enough, it can find ample reasons to reject any ally as unworthy or indefensible -- and end up alone.

The third criterion is autonomy, the ability of the United States, to decide in future circumstances whether and how far to intervene in a Middle East conflict. Whatever the rationale for adopting a "trip-wire" situation in Europe, created by the presence there of American troops, such an automatic reaction system would not be a good idea in the more volatile Middle East. The number of conflicts, after all, is likely to be large and

their direction (who is fighting against whom) and duration (who will be involved for how long) hard to predict. Even with the willingness to get involved, the United States would prefer to choose the form (military, diplomatic, economic) and the forum (the United Nations, a Geneva conference, bilateral negotiations) before committing itself to specific actions. Who argues otherwise? Almost everyone who suggests that the United States impose and/or guarantee a settlement stipulating in advance what it would do if or (more likely) when the agreements broke down.

Few argue that legitimacy, solidarity, and autonomy are unimportant as generalized national interests. It remains to be seen what happens when they are measured against the specific mix of military and economic interests with which the United States must also be concerned.

Military Interests

Because the United States need not (and should not) control countries in the Middle East, its defense interest lies in denying rule of the entire area to the Soviet Union or Iran or any other nation. The best way to do this is to reinforce existing tendencies toward national independence, economic growth, and social cohesion in the region. America does not want to weaken anyone, whether Israel or its neighbors. On the contrary, the stronger and more independent each nation is, the less vulnerable it will be and the less likely to combine with some against others.

If national interest in the Middle East were determined solely by military factors,-- a principle with which I disagree -- the United States would do well to back the side that can defend itself with American weapons but without American troops. If the Soviet Union intervened, it could not do so simply by sending weapons; in fact, the regimes it supports, as history shows, lack the internal cohesion necessary to sustain military effort should the tide turn against them. The Soviet Union risks losing arms every time it

sends them. Whenever its allies or proteges are defeated, the USSR must face the difficult choice between letting them go down or risking the use of its own soldiers far away from home. By contrast, the United States, as it were, can meet the situation by remote control. Turn the matter around: What would American public reaction be if our government had to send soldiers in support of undemocratic, unstable, and untrustworthy states whose support could not be guaranteed even after they were saved?

Some people, perhaps too friendly to Israel for its own good, view Israel as strategically important, thus constituting ipso facto a vital American national interest. This position in part is just loose talk: the Middle East somehow is strategic in that it lies between East and West -- next door to Africa, near the Indian Ocean, and along the Mediterranean -- thus leaving open a path to the sea and thence to Southern Europe. What is left is tough talk: Israel becomes a strategic interest by providing the United States with bases for its troops and nuclear weapons. With friends like this, however, Israel would need few enemies, saving itself, so to speak, only to become an occupied country. Thus, much of the reason for its very existence -- the struggle for cultural identity and independent national life -- would be lost in its defense.

As for America, only in desperation would it wish to use Israel as a military base. The United States would have to be unable to refuel its planes or berth its ships or keep its weapons anywhere in Europe and the Mediterranean, or would have to believe that it is so severely threatened that it must have forward bases to defend itself. Israel would have to remain the only friendly patch of ground in a hostile world. In this eventuality -- Israel becoming an American base -- an attack on Israel would be equivalent to an attack on America. By this act, the United States would permanently antagonize all other Middle Eastern countries. The thrust of American foreign policy is to avoid such situations, not to bring them about.

Of course, if Israel proved indefensible, America might see it go down -- with regret, but go down nevertheless. No one is saying that, were support for Israel included within America's national interest, this interest must be manifested militarily by sending troops. But Israel is defensible in all the ways that matter -- externally, internally, and morally. It is true, to be sure, that in actual quantity of material resources, Israel is outnumbered and outweighed. But its capacity to mobilize and direct the resources it does possess is far superior to its neighbors; otherwise, Israel would have long since departed the international scene.

The future military importance of one country to another is determined, not by the resources that exist in some passive sense (like a lump of clay), but by those resources that the country is (a) willing and (b) able to employ with (c) consistency over periods of time. The combined wealth and manpower of the Middle East is much greater than that of Israel. But Israel neutralizes this advantage because its government can mobilize far more of its national resources. As all Israelis know, their government is a good tax collector; it is also a superb conscriptor of men and women. When one takes a dynamic rather than a static view of national resources, Israel is more desirable as an ally.

Suppose we compare Israel with its Middle Eastern neighbors as potential American allies by trying a gruesome but instructive mental experiment. What would be the effect (in these countries) of losing the national leader, the top ten, and the next hundred leaders, or the top thousand, and ten thousand, public officials? In Egypt, Syria, Jordan, Libya and Iran, for instance, the assassination of the national leader might drastically alter the nation's politics. No one knows what would happen after a Quadafi, a Sadat, a Hussein, an Asad, or a Shah left the scene. Even if one person were not crucial, the removal of ten or one hundred at the top might well topple an entire political regime. Only in Israel can we confidently expect that any government which took office, even after all leading public officials had been removed, would be identical -- in political structure and in public policy -- to its predecessor. That consistency, that close communication between elite and mass (or rather the lack of sharp distinction), that consensus on fundamentals among virtually all political factions, is the true meaning of stability. Dictatorships are good at appearing stable while democracies are better at hiding stability beneath surface intrigues. Endless cabinet re-shuffles and coalition re-formations

distract attention from basic agreement on fundamentals. Only when the surface calm of a dictatorship is shattered does it become clear that so few people make the difference between continuity and chaos.

Nothing, as we know, comes for free; there is not only no free lunch, there is also no ally, stable and steadfast though it may be, that is incapable of resisting influence from abroad. A common objection to alliance with Israel, after all, is that its difficult, often recalcitrant leaders make necessary numerous compromises. How could it be otherwise? The very closeness of the relationship between the leaders and the led stems from its democratic character. Such a relationship is based on consent, not coercion: and we know it will last even if the current set of leaders is replaced.

Economic Interests

Let us look at economic interests. A quantitative estimate of Israel's economic worth may be had from the latest (fall of 1976) OPEC conference. Those we may designate as commercial nations, because they want to maximize their oil income, wanted a 15 percent price increase. Saudi Arabia offered 5 percent for six months on the condition that the United States follow a favorable policy in the Middle East. Can we not say, then, that the existence of Israel is worth approximately 10 percent of the OPEC oil bill in America (\$3.4 billion), a sum exceeding the \$2 billion plus that the United States now gives. Even in pure economic terms, Arab need for American assistance in regard to Israel may be worth more than it costs to supply Israel.

I do not say this to argue that America can gain economically from Israel, but only to point out that economic loss is not automatic. In fact, economic interests cut both ways. Obviously the Arab oil-producing nations are much richer than Israel. They are more important now to America than ever before because of their impact on its economy. Whether this impact would be lessened by friendlier foreign relations, or by actions designed to drive

down the price of oil, is not self-evident. More important, even if the flow and price of oil are paramount, America needs a strong and friendly Israel so that oil producers interested in gaining concessions from Israel will have a need for America to intercede for them. America needs Israel in order to be able to bargain with Arab oil producers. Even if peace should suddenly break out, doubtful though desirable as that might be, oil producers would still have to worry about Israel for a good twenty years or as long as oil is likely to be a problem.

But what about the threat of an oil embargo? It is a double-edged sword, of greater potential threat to those who use it than to those against whom it is aimed. Embargo is far better as threat than as practice, for it would simultaneously divide OPEC (the Arab and non-Arab members) and unify its opponents. The unifying force in OPEC is the common interest of its members in making far more money together than they could singly, and thus in competition with each other. Based on past practice, there is little reason to believe that non-Arab members -- Iran, Venezuela, Indonesia, Nigeria -- would join an embargo. By receiving supplies through these producers, as well as by using stockpiles, we could blunt the force of any embargo. In the meantime, as the desperation of western industrial nations grows, they would become more willing to consider joint action against major Arab oil producers. Their people, in the face of evident physical shortages, could be more easily mobilized. The question is whether such nations would be more inclined to abandon Israel or to combine to hold out against rising oil pressure.

Those who submit to open "oilmail" may influence others to take advantage of this weakness. When Saudi Arabia made its case for imposing a five percent oil price increase (one percent equaling a mere billion dollars), it also wanted the United States to make commercial concessions on various other valuable international commodities. An important precedent always implicit in "oilmail" has now been made public: Oil prices as well as oil embargo can be used for additional political and economic purposes. Once the target of "oilmail" is not limited to U.S. policy with regard to Israel, it becomes a

general purpose weapon that can be used to achieve a variety of objectives. If America does not support Israel in the face of "oilmail," then it had better ask which of its other interests are worth more than Israel; those which are not, then, would be subject to the same threat: If the United States does (or fails to do) X or Y the price of oil will rise to Z. "We wouldn't stand for it," you say. Who ever would have thought that tiny, feudal, and despotic regimes could be pressuring the United States in public?

Who, indeed, would have thought that the original oil embargo could have thrown our western allies into such panic, leading them not only to deny military passage to the United States but also to a futile effort to protect themselves by making special arrangements with the Arab oil producers. Yet, if in their desperation they had succeeded in undermining Israel, which of them would have felt confident of securing support if they were directly implicated in the next international crisis? That first impulse did not necessarily represent their lasting interest.

Would the end of Israel have meant the beginning of new and better relationships between the western world and Middle-Eastern governments? (More likely, not long after initial congratulations, the United States and its allies would discover that their relationships with Middle Eastern governments were deteriorating because fundamental differences among them, long submerged by the irritant of Israel, had resurfaced.) Israel is largely responsible for whatever unity exists in the Arab world, and even for creating an Arab need for America. If this need and this unity went, followed by war among and within feudal and radical regimes, America might long for the bad old days. Peace in the Middle East with Israel would be good for America, but a peace without Israel would be no peace at all.

Cultural Interests

To have interests implies willingness (up to a point) to sacrifice something for them. Unless there are things one is prepared to give up, interests are only unfocused desires. Asked to lay it on the line, how much would Americans be willing to sacrifice for what interests?

Without ranking priorities my list would include religious liberty, political freedom, economic opportunity, and such other practices as ethnic pluralism, and freedom to travel and choose goods, which define our way of life. Put the matter the other way: Who among us would want to defend an America which lacked these aspects of what is loosely called culture? Indeed, it is this cultural complex that we call the American way of life. If its legitimacy were undermined -- if political liberty were a farce, if ethnic pluralism were a delusion, if advancement depended wholly on political

favoritism -- America would collapse from within long before it was threatened from without. America's first national interest, therefore, is to solidify its own sense of self-worth.

Translated into international terms, America's primary interest is to foster an environment hospitable to its culture. "Fortress America" might be a military goal, but it could never be the cultural one, for that requires a number of nations sharing sites where Western culture is (and historically has been) practiced. Foremost among these, because of the critical part they played in creating our culture, are Jerusalem, home of Judaism and Christianity, and Athens and Rome, originators of our secular civilization.

I presume to remind us of the child's ABC's of Western culture because the cultural importance of these places is not matched in this era by their economic or military significance. Greece and Italy hardly could defend themselves against external attack. They have little to offer economically, and their loans, likely to be succeeded by larger loans, are unlikely to be repaid to the United States and other Western creditors. Much the same, I might add, could be said of Britain, which is not without cultural-historic value among ourselves and other English-speaking states.

Need I say that Americans would be devastated if London, Rome, Athens, or Jerusalem fell into hostile hands? Deprived of cultural ties and affectionate memories, we could hardly help but wonder if our days were numbered, and whether cultures like ours were doomed to disappear. Let us just say the decline of the West would not be good for American morale.

Presumably it is this cultural interest that is called "ideal" as opposed to "material." Why things worth fighting for should be separated from what it takes to fight for them is beyond me. Would the capacity to use force not be affected by the strength (or lack of it) of the belief in self-worth that underlies the will to defend oneself?

I must add immediately that morality need not become a synonym for moralism; defense of cultural values need not imply aggression against the beliefs of others. There is no reason to say (and many reasons to guard against saying) that America is more-moral-than-thou or has a mission to convert the world. What America does have is an interest in protecting its own values, values that require reinforcement from other compatible cultures.

Culture alone, considered as pure preference, is not enough without the means for its realization. As Jung says, "The man who promises everything is sure to fulfill nothing, and everyone who promises too much is in danger of using evil means in order to carry out his promises, and is already on the road to perdition." Interests may become delusions if they are incapable of being realized in actions. America's cultural interest in Israel must be supportable. How, then, might it be managed?

Procedural Rules for Expressing American National Interests

Goals for America, we now see, lie in preserving a compatible culture in Israel as well as in the western world, enhancing the viability of the states which surround Israel, and reducing the probability of any being drawn into war. To secure these aims the United States needs not only a formula for an immediate settlement but also rules to enhance the prospect of permanent peace. These rules should be designed to provide the parties at conflict with incentives not only to settle, but also to monitor agreements reached so that the need for American intervention is reduced.

The first rule is that crime (read, moving armed forces across boundaries) should not pay. This means both that the United States will help negate gains won by aggression and that it will not intervene to prevent losses sustained by the aggressor. The superpowers must not provide insurance

policies against the risks of aggressive war. So long as the parties believe they can attack each other with impunity (if they win, they win, but if they lose, they are rendered able to try again) violence will grow. However promising any settlement that the United States might help negotiate, inevitably it will break down if one side can significantly better its position by force.

The rule on force is essential, but it cannot stand alone, for then those who gain by the status quo could prevail by doing nothing. Thus our second rule is one of reciprocity: Each side gets as much as it gives; for each degree of peace conceded by Egypt, Syria, Jordan and their allies, Israel must make a corresponding territorial concession. The most is given for normalization of relations -- trade, travel, diplomatic relations, etc. -- and the least, but still something, for nonbelligerency. The more Israel and its neighbors yield to each other, the more they should expect to get.

Our third rule is to leave room for error. How things begin happening may determine what takes place later on. Concretely, this rule means that implementation of any agreement should be phased over considerable periods of time. If an overall settlement means that each element is tightly linked to each other, the malfunction of a single part can destroy the entire edifice. By building up agreements part-by-part, all parts will not have to be assembled anew if only one fails to function. Breakdowns thus can take place without imperiling an entire structure of agreements and without resulting in the movement of armies immediately next to Israel's heartland or in the need for a U.S. presence in local disputes. Placing American troops between belligerents would trap the United States in a web of events from which it might be difficult to disentangle itself. The rule on room for error is designed to let repairs take place without directly involving the United States. Otherwise, America eventually would become the adjudicator of all disputes, with the responsibility and hence the danger that this implies.

The United States should be as much concerned about repairing breakdowns as about initial agreement. That agreements may have to be concluded simultaneously does not mean that all have to collapse at the same time. If assaults took place across the Lebanese border, for example, the United States would not wish this relapse to be followed by fighting along the Egyptian, Jordanian, and Syrian borders as well. Such a "peace" might soon seem worse than an old-fashioned war.

The fourth rule, that all agreements should be self-policing, is aimed in part at avoiding unwanted American involvement. Specifically it means that joint Israeli-Egyptian-Syrian-Jordanese patrols are to be made responsible for various regulatory tasks such as maintaining demilitarized zones. For one thing, these exercises will provide practice in living together. For another, joint involvement means that the parties must at least try to repair breakdowns before calling for outside help.

The fifth and final rule is to involve others. The Soviet Union should be included in (not kept out of) negotiations so that it shares responsibility for the results. Since there can be no viable agreement without the USSR, its participation is essential for its consent. More valuable than its signature on treaty paper, however, would be Soviet forbearance in not taking advantage of breakdowns by supporting local repairs. Credit for a settlement should be shared to avoid discredit for a dissolution of all that has gone before.

Are there no limits to this American national interest in Israel? In other parts of the world there are limits to American action. If Canada were invaded, the United States presumably would intervene. But in some situations -- if internal discord rendered Canada militarily indefensible, or its alleged oppression against its French-speaking countrymen rendered it

morally culpable, or it was trying to involve the United States in an unwanted war -- the United States might well take no action. No commitment is (or should be) total. Therefore America's desire for a speedy settlement in the Middle East should not lead to its being sucked in unawares. To go on dreaming that every problem can be solved -- an old American illusion -- could prove especially unfortunate in the Middle East. A settlement in the Middle East is in America's interest only if it initiates and sustains a process through which contending parties maintain the incentive to solve their own disputes.

The Process is the Purpose

It may not be in America's interest to seek comprehensive, once-and-for-all solution to the Israeli-Arab dispute. Why? Because the process of negotiating a single solution could lead to overexposure and over-commitment. Overexposure is inevitable because the United States would have to negotiate each and every point in public. Over-commitment comes from overexposure: Since American prestige would then be visibly attached to a settlement, the party over whom the U.S. has most leverage (and of whom it is asking the greatest sacrifice -- no doubt Israel, but possibly the Palestinians as well) will ask for guarantees. Thus the United States will find itself saddled with treaty commitments requiring it to move in if Israel is invaded or to coerce Israel if it reneges. By promising Arab Palestinians a state of their own, the United States (and what is worse, its soldiers) would be in the middle of the Middle East, directly involved in the numerous violations of the settlement that are bound to occur when an imposed rather than a mutually (un)satisfactory solution is negotiated.

It is not in America's interest to get credit for an agreement that will lead to direct (and quite possibly armed) U.S. involvement every

time something goes wrong. Alternatively, it would be morally debilitating to America and its allies to look the other way when obvious violations of the peace accords take place -- either because there are so many violations it is difficult to justify intervention in each and every situation, or, because this is deemed too dangerous. It is not wise for the United States (alone or in concert with others) to have to decide what is or is not a violation, let alone to find it necessary to rectify those that take place. The greater the extent to which the parties police their own agreements, the better for the United States.

How can conflict be limited and structured so that its creative elements are retained and its destructive tendencies minimized? By making it worthwhile for the parties directly involved in the dispute to reach and police their own agreements. And how might this be done? By reinforcing the rules of force, reciprocity, error, self-policing, and implication that enhance mutual accommodation.

Here lies the American dilemma in the Middle East; autonomy is ultimately at odds with solidarity. To support solidarity it is necessary to let others know in advance that the United States will not allow Israel to be destroyed. To preserve autonomy, the United States should not commit itself to specific actions in advance. I have tried to reconcile these interests by suggesting a general commitment to the preservation of Israel manifested by processes that preserve as much discretion as circumstances will allow. Should America's interest in its own legitimacy prove decisive in maintaining its commitment, as I have argued, letting others know will provide a restraining influence on all concerned. If the United States will not accept the worst, it should seek to restrain others from attempting it. Let's look at the record, as Al Smith used to say: America has intervened before. America, under different Presidents and parties, has pledged itself to preserve Israel; both

parties' national platforms include these pledges. President Carter has reinforced them. So has Congress. Of course, there is risk even in a general commitment; but so is there risk in its absence and, worst of all, in vacillation, for that tempts the worst impulses without having decided one will not thwart them. There is no easy way out -- one single decisive act to assure permanent peace -- but only the steadfast application of rules that cannot eliminate but can reduce risk.

If there is risk in over-commitment there is equal danger in the other direction: Because it has managed so well in the past, because its deeds of "derring-do" are only too well-known, Israel's capacity to go on confronting adverse conditions may be overestimated. How long can its people live with the constant awareness that they may be invaded and over-run with few friends to help them? How long can they cope with a super-heated, overinflated economy in which it is unwise to save, and with which it is impossible to keep up? Morale good enough to sustain a single heroic effort may be dissipated by too many small sacrifices. The result could be sudden collapse, followed by a precipitous rescue effort -- much more dangerous for them (and us) than continuous support. If Israel is worth preserving, the United States should stick to rules that will make it less necessary to take risks when it is very late or very dangerous.

The Promised Land: America and Israel

I have argued that the United States should wish Israel to survive because this is in our interest. Yet if the justification for Israel is so obvious, why is it so often challenged abroad? Why indeed?

We are brought face to face with a controversial and emotional topic, perhaps the largest obstacle to peaceful relations between Israel and its neighbors: Does Israel have a moral right to survive? In America, to be sure, the question is always raised the other way round: as ex-Senator Fulbright said, "It is in our interest for Israel to survive because we wish Israel to survive,"* suggesting that Israel's survival is morally right but materially wrong.

Can there be a concept of national interest that does not include concern for a nation's cultural heritage, its liberties, and its religious and moral character? The answer is "no" because even the narrowest definition -- national interest as vital to the physical survival of the country -- includes a moral preference for the survival of the nation's way of life. If this were not so, if existence alone were the aim of national policy, then either pure passivity or unlimited aggression would be adequate. On one hand, armies could be abolished and the nation laid open to all comers; alternatively, all efforts could concentrate on national defense even if morality, liberty, and culture fell by the way. But no one, presumably, argues that survival should be America's only interest, or that either pure passivity or all-out aggression is the best way to achieve it. No, the argument is always that the things we care about most are compatible with survival. Like the lady in the lifeboat who refuses to choose which of her children to save, Americans try to make all basic values compatible with surviving to enjoy them. The question here is whether they go along with support for Israel.

*J. William Fulbright, "United States Interests in the Middle East," (Middle East International, December 1975), p. 6.

If Israel truly is all that we know it to be -- politically free, morally humane, an expression of the best in Western civilization -- why does it have so many enemies? This apparent anomaly must be faced. On the surface, obvious answers suggest themselves. Arabs regard Israelis as intruders and dispossessors, Europeans see them as an inconvenience in making arrangements with Arabs, for the sins of Europe during the holocaust have been transferred to the Middle East. The Soviet Union sees an opportunity to gain a foothold by exploiting enmity against a nation based on a different political system. African and Asian nations see Israel opposed to their "third world" compatriots. At a deeper level, however, we must all recognize that Israel is an anomaly in the world that has taken shape since the Second World War.

A respected student of Middle Eastern affairs, Professor George Lenczowski, observes that Israel is the only major exception to the "movement of liberation and anti-colonialism promoted on a world-wide basis by the United Nations and practiced by the major Western powers."* Lenczowski says that Israel is a state established

...by immigrant alien colonists in the teeth of native opposition.... Israel and its supporters in the United States have often argued that opposition to Jewish settlement in Palestine is artificially spurred by self-seeking Arab politicians and that the ordinary Arabs of Palestine stand to gain from Jewish immigration by being exposed to better agricultural techniques, greater employment opportunities, and improved health standards.... These assertions might have been correct, and yet the world today has repudiated them, recognizing instead the right to independence as a higher value.**

It does no good to say that the United States and the Soviet Union have been far more expansionist in their time, or that Israel has paid for its land

* George Lenczowski, "United States Interests in the Middle East," (American Enterprise Institute for Public Policy Research, October 1968) p. 110

** Lenczowski, p. 110.

whereas others have simply seized what they wanted, or even that Arab Palestinians would have a state if Israel had not been attacked in 1948. True but irrelevant. If self-determination circa 1945 is the standard, Israel wasn't there and the Arabs (though not of course the Palestinians, whose sense of national identity was created by the conflict with Israel) were. The basic argument against Israel is not strategic or material but moral and cultural. Israel is accused of violating moral principles and it is attacked because it represents a different kind of culture -- Western culture in a non-Western area of the world.

America's national interest in Israel rests on this: any moral argument which condemns Israel applies equally to America itself and any cultural argument against Israel applies to all of Western civilization. In Israel we Americans are brought face to face with our own origins. When we ask whether we have an interest in Israel we are really asking about ourselves.

America's highest national interest is preservation of what gives it its own sense of self-worth. If the idea of America became illegitimate to Americans, nothing else would much matter, for our people would have lost both their ability to identify interests and their will to support them. Well and good, one might say, but where does Israel fit in? In the past, our forbears used to refer to America as their Zion, their promised land. In the present, it is hard to find a single objection to Israel (other than its small size) that does not apply equally to America. Israel alone raises questions of the legitimacy of immigration, the value of religion, the desirability of democracy, and the viability of western culture. To ask if Israel deserves support is to ask the same question about America.

By acting as if there were no American national interest in Israel, the United States would simultaneously be rejecting its own identity. America has a national interest in Israel precisely because no other nation invokes at one and the same time so many basic American values. What's in it for us? -- Our own purposes, values, self-worth, and any other reasons we have for believing in ourselves.

ENERGY POLICY RECOMMENDATIONS
SUMMARY VIEWS

Dr. A.E. Safer
Vice President - Economics
Irving Trust Company
March 20, 1977

The principal objectives of government energy policy, within the limits of the immediate technical and political constraints, appear to me as follows:

- a) Achieve the greatest possible self-reliance from unreliable and monopoly priced foreign oil sources.
- b) Prevent energy shortages from causing increasing economic dislocations.

There are really two separate sets of issues associated with the Energy Crisis. The first is an international problem, affecting U.S. foreign political and economic policies. These problems relate to OPEC control of world oil supplies which represents a fundamental change in the world power structure. The second is a domestic economic problem which is related to a changing set of social values among Establishment decision makers in the United States. Present energy policies have so confused these two sets of issues that neither of the objectives are being met, and we are in fact further away from them than we were in 1973. In particular, increasing constraints on domestic energy production have caused an even greater necessity to import oil from OPEC.

International Policies

- a) Break the preferred access of the international oil companies so that OPEC governments will have to compete for world oil markets. An immediate step in this direction would be the introduction of a variable oil import quota administered by the U.S. government.
- b) Subsidize the cost of U.S. oil imports, to reduce the price of foreign oil to the American consumer. I would recommend a subsidy of \$3/bbl. to reduce the present average delivered cost from \$14 to \$11.
- c) This subsidy should take the form of a Treasury note paid directly from the U.S. government to a particular OPEC government, in return for selling the oil to the U.S. company for \$3 less per barrel. This would also alleviate some of the balance of payments burden on the U.S. economy.

Domestic Policies

I. Oil

- a) Remove all price controls from the U.S. oil market. The average price of domestic oil would rise from a current level of around \$8.50/bbl. to \$11, which would be the ceiling imposed by the import subsidy. Thus foreign and domestic oil would sell at the same price in the U.S. and the cost to the American consumer would remain the same as it is today.
- b) Impose a windfall profits tax on the domestic producers, with a credit for reinvestment in domestic exploration and production. If there is no increase in domestic drilling, the Treasury would get back the cost of the import subsidy. If the oil companies increase their U.S. drilling, the Treasury would get back less revenue from the tax, but the prospect of more domestic oil.

- c) Impose a gradually rising gasoline tax, with ample time for people to adjust. Increased mileage efficiency standards are already in place, but may need to be speeded up. Revenues from the gasoline tax should be used for mass transit and for fuel stamps to low income groups.

II Natural Gas

- a) Immediately deregulate new natural gas production, and gradually phase out price controls on existing gas supplies.
- b) Encourage state regulatory bodies to impose incremental gas pricing to industrial users, phasing out "roll-in" pricing. Utilize federal subsidies to the states to promote this process.
- c) Begin a major program of coal gasification to provide a long term supplement to conventional natural gas.
- d) Discourage imports of liquified natural gas from high priced, insecure foreign sources.
- e) Work with the Canadians to speed up the Artic gas pipeline.

III Coal

- a) Provide financial incentives to the electric utilities to employ stack gas desulfurization techniques ("scrubbers") in combination with the immediately available high sulfur Eastern coals.
- b) Do not support horizontal divestiture; it's another scapegoat issue which will leave the coal industry with even less capital, technology, and management than it now has.
- c) Western low sulfur coals (as well as shale oil) have formidable water, environmental, and transportation problems. These will be much more difficult to overcome than (a) above.
- d) Support the new strip mining bill, simply to get some consistent law on the books.

IV Nuclear and Electricity

- a) The anti-nuclear position borders on the irrational; it stems from fear of the unknown. Unless the U.S. meets its minimum goal of 130,000 megawatts of nuclear power by 1985, hope of reasonable energy self-reliance by 1985 is futile. Don't confuse the breeder reactor which is still in the research stage with the currently operational light water reactors.
- b) There is ample uranium in the U.S. to meet our needs well beyond the year 2000. There should be an investigation into the current methods of uranium pricing.
- c) Encourage state regulatory bodies to impose incremental pricing for electricity, and eliminate the current quantity discounts, especially for industrial users.
- d) There is ample capital available for power plant construction, provided that the electric utilities can earn a return on investment acceptable to private investors.

V Conservation and Economic Growth

Energy and economic growth are tied together. A more efficient use of energy means sacrificing some growth in real personal income while the capital investments for new energy conservation technology are implemented. Rising energy prices will continue to shift consumer spending to energy and other necessities whose production costs have risen due to rising energy costs. This means less spending on other less necessary items. As a result, if general economic policy pushes too hard for a more rapid rate of real economic growth, severe inflationary pressures will resume, and another economic recession will follow. Steady and slower growth is necessary until the economy can make the adjustments to these higher energy costs. Pushing too hard for a reduction in unemployment through higher government deficits will make the energy conservation job that much tougher.

Between now and 1985, the economy will grow at a slower rate than during the past decade. The more rapidly it grows now, the greater the likelihood of a recession later. As a result, we will have to tolerate a higher level of unemployment for a few more years until the growth of the labor force slows substantially in the early 1980's.

Israel's Economy and the Role of External Funds

Howard Pack*

* Professor of Economics, Swarthmore College

I Introduction

Any analysis of the foreign aid requirements of Israel should be derived from an understanding of the country's economic structure and the role of capital inflows within this larger picture. Thus, I will first outline some of the major features of Israel's economy and briefly examine its past performance. Only after this history is established can the discussion of foreign aid proceed within a coherent, logical framework rather than as a series of arbitrary statements.

Israel is among a number of countries whose economic growth is conditioned by the twin facts of a highly skilled population and a relatively poor natural resource base. That this combination is consistent with sustained economic growth (defined as rising income per capita) can be seen, most dramatically, in the case of Japan. Countries possessing this endowment of factors of production will normally import a variety of natural resources and semi-finished inputs, process them, and export sufficient quantities to pay for these imports. Given the relative abundance of skilled labor in Israel, and the fairly high (by international standards) wages of unskilled labor, the composition of output must be disproportionally weighted towards products in which skilled labor is an important component. Israel's exports, particularly newer ones such as medical instruments, indeed embody considerable quantities of skilled labor. The composition of production is increasingly shifting toward high skill industrial

products and agricultural exports such as vegetables grown in the off-season using advanced technology and sent by air to Europe.

Israel's need to engage in international trade is not solely conditioned by its resource base. Even well-endowed small countries such as Norway . trade extensively. Any small country is simply unlikely to possess a sufficiently wide resource base to preclude the need for external purchases and sales. Moreover, as is well known, the possibility of international trade offers considerable scope for a country to increase its real income through specialization in those activities in which it has competitive advantage. Finally, it should be emphasized that Israel's population is sufficiently large to permit a wide range of efficient economic activity, provided that the opportunity for trade exists. Its population of three and a half million is similar to that of Norway, and not much smaller than that of Denmark.

It would not be necessary to emphasize the economic viability of Israel were it not for the oft-repeated assertion to the contrary, beginning with a number of British commissions to Palestine in the 1930s. Such statements, when they do not simply represent convenient political stances, evince a fundamental lack of understanding of the dynamics of economic growth, particularly the possibility of overcoming a lack of natural resources by

international trade. If natural resource endowments were all that mattered in determining economic success, the positions of Japan and Zaire would be reversed in terms of their respective standards of living.

Two other economic characteristics of Israel have also drawn considerable attention in the press and popular discussion, and evoked pessimism, namely, the chronic balance of payments deficit (in the sense of current imports of goods and services exceeding exports) and the high tax levels. Each of these will be analyzed after a capsule economic history without which their dimension and function cannot be placed in perspective.

II A Brief History

Since obtaining independence in May of 1948, Israel's economy has evolved through three distinct periods: 1948-51, 1952-66, and 1967 to the present. Although further useful subdivisions are possible, they would be mainly of interest to the specialist.

1948-51

The years 1948-51 were ones of mass immigration; from May, 1948 through December, 1951, the population more than doubled from 650,000 to 1,404,000. About 90 percent of this extraordinary increase was attributable to immigration; the immigrants comprised roughly equal numbers of Europeans, mainly from the displaced persons camps, and those from the Arab countries of the middle-east.

Not surprisingly, during these three years only limited per capita growth occurred, both human and physical resources being devoted primarily to the successful absorption of the destitute immigrants. Of course, even the maintenance of per capita income required a large increase in total income given the magnitude of population growth.

1952-66

From 1952 to 1966 intense efforts at economic development were undertaken. Though substantial immigration continued, it was at a lower level than in the preceding years and required a smaller percentage of the economy's labor and material resources to permit successful absorption (defined as the provision of some minimum acceptable standard of living and the generation of employment for the breadwinner). In the early years of the period Israel's per capita income was low, (\$600 in 1955), comparable to that of some of the more developed Latin American countries (Argentina and Venezuela), and below that of the better-off Western European countries. As in almost all developing countries, the initial governmentally directed program to foster growth in per capita income took the form of replacing imported products, both agricultural and industrial, by domestically produced goods. Government loans and investment preferences were accorded to those companies whose products allowed a reduction in the import of specific products. This effort, designed to raise domestic production and reduce outlays on imported products, was the earliest manifestation in economic policy of the need to reduce

the excess of imports over exports which had characterized the country since Independence. The effort was fairly successful in terms of reducing the country's ratio of imports to gross national product, the latter declining from 31 percent in the early 1950s to about 27 percent in 1960.

By the late 'fifties almost all economically feasible import replacement had occurred in both agriculture and industry; indeed, it may have gone a bit further than desirable. A sustained growth in exports was thus needed to narrow the continued excess of imports over exports, and a variety of policies were introduced by the government to encourage such growth. They were notably successful; between 1958 and 1966 commodity exports rose from \$139 million to \$475 million,* a growth rate of 16.6 percent per annum, and the share of exports in GNP rose considerably. Because of excessive pressure on productive capacity and the continued import surplus, a slowdown was induced by restrictive monetary and fiscal policy in late 1965 and continued almost up to the June, 1967 war.

1967-75

Between 1967 and 1975 Israel experienced continued rapid growth, though with more fits and starts than in previous years. Although exports continued to increase at a high rate, large internal consumption demand for commodities led to a slower rise

* There was no change in the export price index during these years so that the growth in dollar volume corresponded to the real growth.

than could have been obtained from the growing productive capacity and knowledge about export markets. Simultaneously, a rapid growth in imports, primarily attributable to defense needs, led to an increased ratio of the import surplus to GNP. It should be noted that even when exports grow at a more rapid rate than imports, this is not sufficient to decrease the import surplus. For example, assume imports of \$4000 per year and exports of \$2000. If exports grow by 20 percent over the next year and imports by 15 percent, the import surplus will nevertheless grow from \$2000 (4000-2000) to \$2200 (4600-2400). Thus, despite the more rapid growth of exports in this period, the import surplus increased.

The following tabulates some of the growth rates used in the above summary.

	<u>Rates of Growth</u>	
	<u>1952-66</u>	<u>1967-75</u>
Gross National Product (constant prices)	9.8	8.4
Population	3.8	3.0
Gross National Product (per capita)	6.0	5.4
Exports of Commodities (constant prices)	17.4	13.6
Imports of: Civilian Commodities (constant prices)	7.5	4.8
Imports of: Defense Commodities (constant prices)	unavailable	14.6

III Analysis of the Import Surplus

The major economic problem that has confronted Israel's economic policy makers since independence has been the continuing excess of imports over exports. The elimination of this deficit requires a decrease in the domestic use of the economy's output and the export of those products thus becoming available. Thus, one of the three local uses, private consumption, government expenditures, or investment must be reduced and the manpower and equipment formerly devoted to producing them redirected to the production of exports. Such a reallocation can be brought about by increased levels of taxation (to reduce consumer spending), a decrease in the level of service provision by the government, and by higher interest rates or taxes to discourage investment. If present levels of investment are to be retained to ensure continued expansion, policies to discourage investment cannot be adopted and the burden of adjustment must fall on private and public consumption.

From 1952 to 1966 the Israeli economy was in fact moving in the above direction. Public and private consumption declined in relative importance and the share of exports in national output was growing. As a result, the ratio of the import surplus to gross national product declined continuously, from 20 percent in 1952 to about 13 percent in 1966, reflecting both the substitution of domestic production for imports and a rapid increase in exports. Toward the end of this period it would have been possible, with

not very drastic increases in tax rates, to have engineered the requisite decrease in private consumption, though to be sure such an increase would not have been greeted with joy. Tax increases rarely are.

The financing of the total pre-1967 import surplus primarily took the form of transfers which did not have to be repaid, usually termed unilateral transfers. By far the largest share of these came from the world Jewish community and the West German government, the latter in the form of both personal restitution payments and government-to-government reparations payments. Total U.S. aid from 1948 to 1966 constituted \$815 million or 12.4 percent of total capital inflows of \$6.56 billion. About two-thirds of the U.S. aid was in the form of low interest loans, the rest being grants in aid. The latter were discontinued in 1963 and had been relatively small since 1954. Thus, before 1967, U.S. aid, while generous, had by no means been decisive in financing the import surplus.

A major function of the import surplus (and its mirror image, financial inflows) before 1967, especially in the 1950's, was the easing of the burden of absorbing large scale immigration. Without this external aid, taxes would have had to increase, and consumption decrease, despite the relatively low standard of living of most of the population, many of whom were themselves recent immigrants. Similarly, some of the burden of the disproportionately large military outlays was mitigated by the

availability of external funds.* Nevertheless, the inflow of funds was greater than the combined requirements of immigrant absorption and defense and contributed importantly to the financing of productive investment. If external finance had not been available, the same level of investment would have required lower public and/or private consumption. Had this in fact been necessary, it is likely that Israel's government, like those of other countries, would have generated the necessary investment funding from domestic resources by active measures to reduce consumption and growth would not have been precluded; the availability of aid mainly allowed consumption to be greater during these years than it would otherwise have been.

Thus, before the 1967 war, Israel had been dependent, to a quantitatively limited degree, on the influx of foreign funds. There had been fairly successful effort to reduce the size of the import surplus, although further politically unpopular measures still remained if the gap was to be completely closed. The June, 1967 war, and even more, the October, 1973 war, altered this picture in quite fundamental ways. The import surplus which had constituted 13 percent of GNP in 1966 grew to 24 percent by 1970 and 41 percent in 1975. Part of this deterioration reflected the continued growth in private consumption, but most was attributable to the greatly augmented inflow of expensive, modern

* Israel's defense expenditures in 1953-54 amounted to 7.7 percent of gross national product, as compared with 3.7 for Sweden, 1.9 for India and .5 in Ceylon.

military hardware, as well as the intensive use of domestic productive capacity, especially labor, in military rather than civilian pursuits. Whereas in the 1952-66 period, the import surplus covered substantially more than the combined costs of immigrant absorption and defense, by 1975 the huge surplus, \$4 billion, was only slightly larger than total military expenditures (foreign and domestic).

Put another way, if, in 1975, Israel's defense budget, ~~IL~~ 26,470 million could have been eliminated and the manpower and matériel thus absorbed completely redirected to the production of exports, (see p. 14), the import surplus would have declined from \$4 billion to \$557 million. Allowing for some "normal" defense expenditures, say the same percentage as the NATO countries, might have added \$275 million for a total of \$832 million. Moreover, the calculation understates the potential increase in exports for a number of reasons.¹

1 For example, the calculation of the civilian output foregone because of military expenditures assumes that the wages in the military accurately reflect civilian productivity, whereas it is likely that military pay is considerably below civilian productivity. Similarly, the non-wage income normally generated simultaneously with wage income in the civilian sector has no counterpart in the military. Non-wage income in the private sector is roughly half that of wage income. The calculation also excludes many civilian expenditures, such as roads, whose size is partly affected by defense concerns. Finally, it should be noted that the imports required to produce exports do not appear to be significantly different from the import content of military expenditures, thus justifying the implicit assumption that total imports remain constant.

Table 1

	Millions of Israeli Pounds	Percent of Total Uses
1. Private Consumption	45,372	34
2. Government Expenditures	34,727	26
2a. of which defense	(26,470)	(20)
3. Investment	25,398	19
4. Exports	<u>27,175</u>	<u>21</u>
5. Total Uses (1+2+3+4)	132,672	100
6. -Imports	57,808	44
6a. of which defense	(11,983)	(9)
7. Gross National Product (5-6)	<u>74,864</u>	<u>56</u>
8. Import Surplus (4-5)	30,633	
9. Domestic Defense Expenditures (2a-6a)	14,487	

In 1975 the import surplus was IL 30.6 million. Of this direct defense imports were IL 12 million and domestic expenditures on defense amounted to IL 14.5 million. Thus, the import surplus was only slightly larger than total military expenditures of IL 26.5 million. In tabular form these calculations can be summarized as follows:

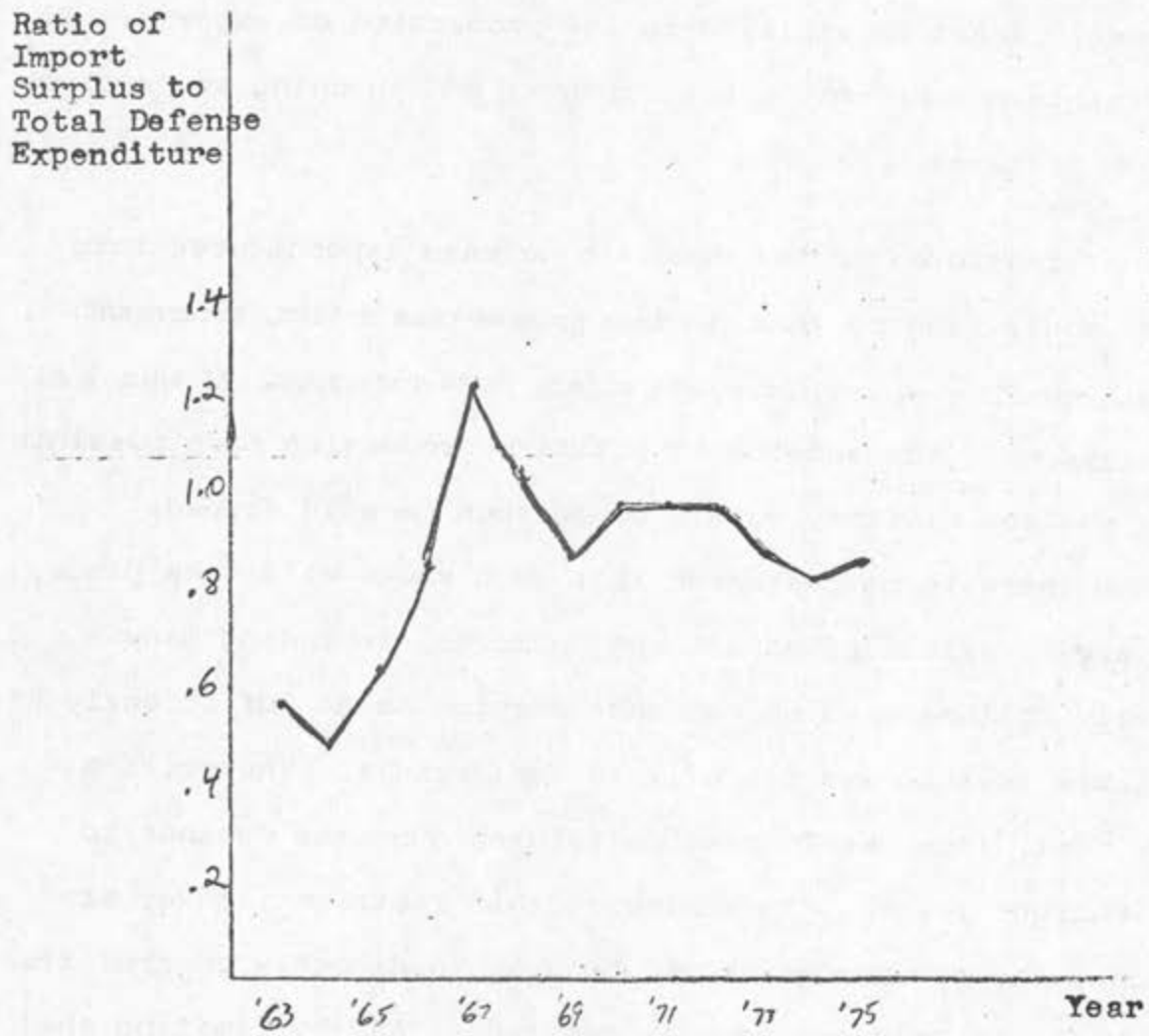
Import Surplus	1 30,633
Imported Defense Goods	1 11,983
Domestic Defense Expenditures	<u>14,487</u>
Total Defense Related Expenditures	26,470

Import Surplus not Attributable to Defense	1 4,163
Millions of Dollars at Exchange Rate of 1 7.47 per dollar	557

Although the preceding concentrates on 1975, the conclusions are relevant for the entire period since 1967. Until 1967 the import surplus exceeded the combined expenses of defense and immigrant absorption and thus paid for a substantial fraction of Israel's investment. In the years preceding 1967 the ratio of defense outlays, domestic and foreign, to the import surplus was typically 2/3 or less. Since 1967 this ratio has in many years been close to 1, in the most recent years averaging about 85 percent (see Figure 1). In light of the probable underestimate of true defense costs, it is likely that since 1967 almost the entire surplus, (remembering foregone exports), year by year, has been devoted to defense.

In 1975 defense domestic and foreign outlays amounted to 86% of the import surplus. The remainder constitutes the maximum amount by which the civilian economy was living beyond its means, that is, the quantity by which private consumption, government non-defense spending or investment would have had to decline if the non-military related import surplus were eliminated. This amounts to less than 10 percent of private consumption.

Figure 1



Thus, the import surplus of the last decade is largely due to defense outlays, foreign and domestic. Although the latter do not directly lead to foreign exchange outlays, they do so indirectly insofar as the local resources devoted to defense, namely, manpower and equipment, cannot be utilized in the production of exports. It is useful to pursue this a bit further, and in doing so, analyze the role of taxes.

The transformation of domestic defense expenditures into exports would require that neither private consumption, government civilian expenditures, nor investment absorb these resources. If this goal were realized the additional civilian production made possible by the smaller military outlay could then be sold abroad. Although there is no guarantee that such sales will take place, there are a variety of government policies, including many currently followed, which can make foreign sales sufficiently profitable so that exports will in fact result. The critical policy feat, then, would be constraining domestic demands to their current levels. In achieving this restraint, taxes are critical; the government should be able to directly control its own demands for non-military expenditures, and by limiting the extent of bank lending, be able to limit business investment. To prevent the growth of private consumption, however, requires that taxes on households be maintained at their current levels so that spendable income does not grow. The role of taxes, then, is to restrain the growth in private consumption and

thus permit new agricultural and industrial production to be sold abroad rather than consumed locally.*

The preceding may be viewed from a slightly different perspective. Again consider the economy in 1975. If 1975 tax levels had been maintained, and military expenditures eliminated, the government would have shown a surplus (£ 8 billion) rather than a very substantial deficit (£ 22 billion). This change in surplus would have been equivalent to the increase in exports (£ 30 billion) and thus to the decline in the import surplus. The surplus thus accumulated by the public sector could then have been used to finance domestic investment, perhaps by auctioning off the accumulated funds. The surplus, along with private sector saving, would have been sufficient to finance most of local investment, leaving a very small gap to be filled by an inflow of foreign funds.

* In 1975, total government receipts (taxes and fees) constituted 42 percent of gross national product, roughly the same ratio as that characterizing most of the West European countries. Thus, at the aggregate level the taxes imposed on Israelis were not excessive, at least in contrast with other countries. On the other hand some individuals undoubtedly faced very high marginal rates of personal income tax (i.e., the rate of tax on the last pound earned). This reflects the very narrow income base to which existing rates were applied and hence the need for high rates if substantial collections were to be obtained. Until the recent tax reforms such important income components as the cost of living adjustments were tax free. With the recent reform of the tax system and the much more inclusive tax base, marginal tax rates have been substantially reduced.

We briefly consider the growth in private consumption during 1967 to 1975 as it accounted for a part, though minor, of the continuing excess of imports over exports. During this period the government was unable to restrain, as much as needed, the growth of consumption by traditional tax devices, as the powerful trade unions fought successfully for pre-tax income levels which would permit a growing after-tax standard of living. Israel is thus one of many countries confronting such a dilemma. Western democratic societies, having learned a great deal about providing high levels of employment and limiting hardship for those at the bottom of the income distribution, have yet to develop satisfactory mechanisms for resolving disputes about income shares or limiting the demands for rapid growth in consumption standards. If Israel's balance of payments difficulties were simply like those of England, France, Holland, or Italy, they would be of intellectual interest, but not of great concern to those interested in foreign aid. Until an adequate incomes policy was devised, the import surplus would have to be covered by traditional sources including unilateral transfers, direct investment, and, increasingly, long-term commercial credit and/or loans from international institutions such as the IMF. The inherent limit in the growth of such funding would inevitably force an adjustment in internal policies; the International Monetary Fund would be a much tougher legislator of domestic economic rules than the interlinked directorate of the Histadrut and the labor parties' alignment.

But unlike the other countries just mentioned, Israel's current account difficulty is not simply a reflection of conflicting domestic demands for private consumption goods. While a reduction in domestic consumption would have resulted in a smaller import surplus and thus an economy less dependent on foreign capital inflows, most of the problem lies in the high level of defense spending. Almost all of the current account deficit is attributable to defense outlays.

IV Financing the Import Surplus

Throughout Israel's history most of each year's import surplus has been paid for by unilateral transfers. Thus, borrowing from both private and official sources was relatively limited. The use of loans in the pre-1967 period was not an issue of concern insofar as they helped to create domestic production capacity whose output could ultimately be directed towards exports. As long as a sufficient quantity of exports could be obtained from the augmented capacity to allow amortization of the loan and payment of interest charges, the use of loan finance was a sensible method for (partially) financing economic development. Indeed, external loans had played an important role in the development of the U.S., Australia, and many other countries. Although outstanding loans continued to increase throughout the years until 1967, they rose at a considerably slower rate than export earnings. As neither the average maturity of the debt (which determines the repayment of principal) nor interest rates increased, the ratio of debt service to export earnings continuously decreased - an increasingly small share of each dollar of export earnings had to be set aside for debt service.

Since 1967 outstanding foreign debt has grown very rapidly. However, the continued rapid expansion of exports has forestalled a rise in the debt service ratio. While a growing foreign debt is never relished, it has, until now, not been difficult to finance its servicing. Insofar as the debt being currently contracted is not being utilized to finance increased productive capacity, the continued growth of exports to cover any further growth in debt service cannot be taken for granted.

It is useful, finally, to briefly consider the financing of the import surplus in 1975, the last year for which complete statistics are available. These financial flows are the mirror image of the excess of imports over exports discussed above: they provide the means of payment for the "real" surplus.

Table 2

Financing of Import Surplus - 1975
Millions of Dollars

Import Surplus		4037
Financing:		
Long Term		
U.S. Government Grants	665	
long term loans	<u>1190</u>	1855
Unilateral Transfers- private		732
West German Restitution		359
Payments		
Long Term loans other than		234
U.S.		<u>81</u>
Foreign Investment		
Total Long Term Capital Inflows		3261
Short Term Loans and Changes		
in Foreign Exchange Reserves	<u>776</u>	4037

Unilateral transfers (\$732 million) from private sources and the West German government (\$359 million) more than covered that fraction of the import surplus which was not defense related. Thus, the other sources of both long and short term financing would not be needed were military outlays, both in foreign exchange and domestic, eliminated or reduced to some normal level consonant with Israel's development. Indeed, the total U.S. aid package of \$1.855 billion, was roughly equal to the direct imports of defense items \$1.846 billion.

V. The Question of American Aid

The preceding has set out the dimensions and causes of Israel's current imbalance in its foreign accounts. No prescriptions are derivable about the proper level of further U.S. official aid. This involves explicit political judgments about the moral value to the U.S. of helping to maintain liberal democratic societies with a demonstrable interest in their own self preservation. Currently, we implicitly spend a large share of our defense budget on strategic deterrence to protect the democracies of western Europe, Japan, and Oceania.

If we assume that a similar consideration provides the basis for a continuing flow of official U.S. aid to Israel, what should be its level and composition (grant versus loan)? There are no rigorously derivable guidelines and subjective evaluations are necessary. Given the large outlays on military hardware, and the obvious fact that these do not generate future export capacity to allow repayment, it would seem reasonable to tie the U. S. official aid level to direct dollar outlays on equipment. Such aid would still leave domestic military expenditures to be covered by non-U.S. government sources. These domestic costs will probably increase as a share of total defense expenditures insofar as some of the recent large scale procurement programs are likely to decrease in size, while the number of man-years needed to provide a sufficient numerical strength in the Israeli armed forces will

not decline. Thus, the importance of non-U.S. aid in the financing of the import surplus is likely to increase overtime; if, as expected, such aid, will increasingly consist of loans rather than transfers, it will impose a growing service burden on future generations, though this could be financed with sufficient slowing in the growth of private consumption. Clearly, the larger is the U.S. loan component in any given aid package, the greater will be the future service burden. While there is no critical percentage of loans, which, if exceeded, would prove unserviceable, there is probably some maximum rate of export growth achievable, and if debt service requires more than this, severe problems may result. Thus, a reasonable division of any U.S. aid package, as between loans and grants, will require, at that point, precise analyses of prospective export growth, the existing committed service burden, and perhaps other details. These are likely to change from year to year and precise guidelines, before the fact, are not likely to prove fruitful.

If defense outlays could be reduced to more "normal" levels, say those preceding 1967, official U.S. aid would certainly not be needed nor would commercial and institutional lending. Israel could then resume sustained, long run growth, unhampered by the need for period slowdown occasioned by the need to finance defense related imports. But such an economic idyll depends on resolution of more fundamental questions.

Note on sources of data

All of the data on Israel have been obtained from various issues of the Statistical Abstract of Israel and the Annual Report of the Bank of Israel. More detailed analyses of many of the issues considered in the paper can be found in Don Patinkin, The Israel Economy: the First Decade, (Jerusalem, Falk Project for Economic Research in Israel, 1960) and Howard Pack, Structural Change and Economic Policy in Israel, (New Haven, Yale University Press, 1971)

February 18, 1977

Mr. Robert Jacobs
1180 Avenue of the Americas
New York, New York 10036

Dear Mr. Jacobs:

Thank you for your letter of February 15. While I share some of your apprehensions, I am reasonably confident that some of these things do not represent any kind of crystalization of view within the top ranks of the Administration. They come from the bowels of the State Department and the Pentagon, from briefing papers - God knows when written - and from individuals of slanted views, and have achieved some prominence during this period of transition. Moreover, they must be seen against every positive stance which has been taken by the Carter Administration vis-a-vis Israel, e.g. the PLO, and also vis-a-vis Soviet Jewry, where I expect much more progress under Carter than ever before.

I am also heartened by the determined effort to deal with the matter of energy. I met with James Schlesinger yesterday and was dazzled by both the determination and speed with which he intends to move and here, as we agree, is the crux of the problem.

This is not to say that the apprehensions were not relayed to the foremost leadership of the Administration, privately and from several sources within the Jewish community.

As for your suggestion that a Public Relations Committee be set-up within the Presidents' Conference, you are probably not aware that with the agreement of the Israel Embassy a Task Force on Public Relations was set-up under the aegis of the NJCRAC, staffed by "experts" and reasonably well funded. It is for this reason that the Presidents' Conference has not functioned in this field. Why should two groups do the same thing, there is enough duplication in Jewish life. We had a rather desultory discussion on the subject at the Conference just the other day and some sort of ad hoc solution was proposed on which I am acting but I must note that it does not fully satisfy me.

I appreciated hearing from you. With kindest greetings, I am

Sincerely,

Alexander M. Schindler

KANAREK, JACOBS & CO.
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ROBERT JACOBS, PUBLIC ACCOUNTANT
SEYMOUR KAYE

February 15, 1977

Rabbi Schlinder
Union of American Hebrew Congregation
838 Fifth Avenue
New York, N.Y. 10021

Dear Rabbi Schlinder:

The last time we had a discussion we discussed energy and I fully agree that this is of utmost concern to all of us. However, there were two other areas that I intended to bring up; one was a list of prominent individuals that would have access to Congressmen, the other was a mass media committee that can help mold public opinion.

At present we have seen the first few acts of the Carter administration and to say the least I am most apprehensive. One, the stopping of the sale of Kfir planes to South America and the stories about the 20 year old mystere jets. Second, of course, is the stories emanating from Washington that the sale of the concussion bombs to Israel that were promised by the Ford administration will be stopped. Of course today the news stories about the stopping of drilling for oil in the Sinai is most disturbing.

Although, I have been throughout the country this past week, I have not seen one editorial or one news commentator mentioning the foolishness of not allowing Israel to re-export planes that are made in Israel just because they are using a single American component. I have also not seen one prominent politician protesting. We must face the fact that this is a trend that must be stopped or else the only thing that is going to happen is the squeeze will be increased. I would once again appreciate the opportunity meeting with you to see if we can start a mass media committee within the President's Conference or emanating from the President's Conference and a public affairs committee that can do certain things that are obviously not being done. There should have been a huge protest when the rumors about Israel not getting the bombs or at least a political outcry. Our silence will only lead to a continuation of this policy.

I would appreciate meeting with you at your earliest convenience.

Very truly yours,

Robert Jacobs

P.S. Was a Senator Moynihan contacted to speak up?? or who was?

to reduce the political and social costs such as our vulnerability to the oil cartel and damage done to the environment.

We believe that about 35 Quads of 'conservation energy', which equals about 16 million barrels of oil a day, can be 'produced' by 1985. This would provide for an average energy growth of about 3.5 per cent per year over the next ten years.

Clearly the production of oil, gas and electricity could be held to replacement levels while providing for the energy needs of an expanding economy.

In 1976 dollars, energy will cost an average of approximately \$4.50 per million BTU's in 1985. Yet 'conservation energy' is estimated to have a median cost of only \$2.50 per million BTU's. As a result, if 'conservation energy' can replace 35 Quads of conventional energy sources, some \$70 billion in 1976 dollars will be slashed from our prospective energy budget in 1985.

These 35 Quads of 'conservation energy' represent the largest and least expensive source of new energy in the United States. It is time to make this a national goal, and to seek it as aggressively as we seek more expensive energy sources.

Producing 35 Quads of 'conservation energy' by 1985 will require us to:

- Create in the American people a commitment to save energy as an alternative inexpensive source of energy for every farm, office, factory and family.
- Provide longer term financing to stimulate immediate thermal improvements to residential and commercial properties.
- Demand strict enforcement of Federal energy efficiency standards on autos, buildings, appliances and industrial processes.

Alliance to Save Energy is a private, non-profit, non-partisan organization.

Former President Gerald Ford and Vice-President Walter Mondale will serve as Honorary Chairmen. Dr. James Schlesinger will serve as the Honorary Advisor.

The activities of ASE will be determined by a Board of Directors in consultation with an Advisory Board. The Board of Directors will elect an Executive Committee from their members to implement policy.

The Chairman and Co-Chairman of the Board of Directors are Senators Charles H. Percy and Hubert H. Humphrey.

Dr. Henry Kissinger will serve as Chairman of the Advisory Board. The

MORE

Honorary Vice-Chairpersons will be Secretary Patricia Harris for housing, Secretary Juanita Kreps for commerce and industry, Secretary Ray Marshall for labor, and Secretary Brock Adams for transportation.

The Advisory Board will be made up of individuals from all sectors of American life. It will also include 10 regional Chairpersons, coinciding with the 10 Federal regions, who will oversee the programs of the 50 State Chairpersons.

(A list of the boards to date is attached.)

Policies, positions and actions of ASE will generally constitute a consensus among its directors, advisors and members. But everyone participating in ASE reserves the right to disagree with the organization and to express individual opinions.

An Executive Director will be appointed to manage the day-to-day activities of the organization. A staff of approximately 25 professionals will be headed by Assistant Directors responsible for:

- Commerce and industry
- Buildings
- Transportation
- Utilities
- Public education
- Legislative affairs

This basic organizational structure will be reflected within each state. The state organizations will identify and promote projects of specific value to the states, including statewide conference on 'conservation energy'.

There will be a six month initial phase, funded by contributions from diverse sectors totaling about \$150,000. Thereafter, activities would be budgeted at a minimum of \$2 million a year to be increased as needed.

ASE will be organized as a non-profit corporation, and application will be made for Federal tax exempt status, under which donations to ASE will be tax deductible. Legislative activities will be kept at a level less than 20 per cent of the overall budget.

ALLIANCE TO SAVE ENERGY
P. O. Box 1749
Washington, D. C. 20013

Senator Charles H. Percy

Senator Hubert H. Humphrey

Energy conservation has been called "slow-growth" economics by its critics; its supporters have hailed it as the only way to save our way of life. In fact, saving energy is the most compelling challenge for Americans today.

Record cold temperatures this winter should awaken us to the need to make saving energy the nation's top domestic priority. Because of the cold temperatures and shortage of natural gas, we have been struck with untold human hardship. Thousands are out of work. Millions are struggling to keep warm. And in January, for the first time, we imported more than 50 per cent of the oil burned in America. Not since the Arab oil embargo has the need for energy conservation been so obvious.

If we are to have an effective national energy conservation effort, there must be a different approach and a new definition, one which could capture widespread popular support.

Economic facts are a compelling argument for energy conservation. "Conservation energy"-- based on more efficient and economical use of the energy we have now -- is an enormous, untapped alternative energy source that can reduce our dependence on expensive foreign oil and dwindling domestic energy supplies.

Alliance to Save Energy, a new national organization, will promote this great energy source.

One of our chief tasks is to convince every American -- homeowners, apartment-dwellers, motorists, business leaders, labor union officials, government officials -- that it is actually far less expensive in the long run to invest to save energy than it is to purchase energy.

Alliance to Save Energy will seek to develop a broadly-based constituency for energy conservation; to ensure competitive production of "conservation energy" from investment in more efficient buildings, transportation facilities, industrial processes and electrical generation; and to ensure the production of conservation energy in the amount needed

MORE

FEBRUARY 10, 1977

Office of the White House Press Secretary

THE WHITE HOUSE

Statement by President Jimmy Carter on Former President Ford's and Vice President Mondale's role as honorary chairmen of the Alliance to Save Energy:

"Saving energy must be a major national priority. It is one of America's greatest challenges.

"I want to welcome the timely creation of the private, non-profit Alliance to Save Energy which is being announced today. This organization is dedicated to the concept that there is a new, inexpensive and accessible resource: conservation energy. Conservation energy is the energy derived by replacing wasteful habits and technologies with more efficient ones. Every American can join in the effort to make conservation energy one of our chief resources. I urge them to do so.

"I have asked Vice President Mondale to serve as Honorary Co-Chairman of the Alliance to Save Energy. I am especially pleased and grateful that former President Ford will serve in this capacity also.

"As I said in my address to the nation last week, we must face the fact that the energy shortage is permanent and there is no way we can solve it quickly or easily.

"Conservation will be the centerpiece of our national energy policy. The amount of energy we waste is greater than the amount of energy we import from foreign nations. All of us must learn not to waste energy. I'm confident that the Alliance to Save Energy will play a significant role in implementing our national energy policy. It is just this kind of effort which is now required to mobilize the American people behind the critical need to use precious energy resources more wisely."

#

STATEMENT BY RALPH NADER ON CREATION

OF ALLIANCE TO SAVE ENERGY

February 10, 1977

Senators Percy and Humphrey should be congratulated for launching this major national effort for energy efficiency in all sectors of the economy. Energy efficiency is our greatest immediate source of energy. We can reduce inflation, diminish pollution, defend the consumer and make our economy more efficient and competitive overseas. Mobilizing the public to secure more efficient automobiles, building operation and construction, industrial processes, and consumer technologies will relieve greatly the pressures that are placed on our society by an energy scarcity based on waste. For this group to succeed requires the support and attention of many Americans.

ALLIANCE TO SAVE ENERGY

February 15, 1977

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Ervin Shapiro	Chairman, DuPont Corporation
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December 15, 1976

Mr. Robert Jacobs
Sunbelt Management Associates
1180 Avenue of the Americas
New York, New York 10036

Dear Bob:

Thank you for your recent letter regarding our conversations on the problems of oil importing and Arab economical power.

I appreciate your taking the time to draft a letter and want to tell you that it will not be necessary for me to write to President-elect Carter. I have been in contact with members of his staff and in personal conversations have discussed this particular matter. I can tell you that I was heartened by the response I received as well as the positive movements in this sphere of activity which are already apparent.

With thanks for your concern and with warmest regards, I am

Sincerely,

Alexander M. Schindler

bcc: Rabbi Ephraim Sturm

Sunbelt Management Associates
1180 Avenue of the Americas
New York, New York 10036

SUNBELT MANAGEMENT, INC.
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GERHARD R. ANDLINGER
ROBERT H. SMITH
LIMITED PARTNERS

December 6, 1976



Rabbi Alexander Schlinder
President's Conference
515 Park Avenue
New York, N.Y.

Dear Rabbi Schlinder:

Sorry I did not get back to you sooner about our discussions regarding the oil importing problem and Arab economical power, but due to illness I was unable to do anything until last Thursday.

I have spoken to several prominent people that I thought would be capable of doing the job and heading up a National Energy Committee, as we discussed. However, they all came to the conclusion that for it to be done without governmental help would be foolhearty, instead they suggested that a letter be written to President Elect Carter informing them that the President's Conference will have a sub-committee to help the government deal with energy problems and would have a Chairman of this committee who would like to be involved somehow with the Federal Energy Administration. His job would be to coordinate the various constituent members of the President's Conference to help the government in their effort to reduce our dependence on foreign oil. This would include articles, news stories, etc. in the Jewish media and in various publications of the constituent organizations of the President's Conference. Individual members with exceptional talent would be solicited.

I have written a sample letter that I believe should be sent to President Elect Carter outlining some of the thoughts that I think should be considered.

Very truly yours,


Robert Jacobs

appee

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- done*

*see Stein
& Mr*

PROPOSED LETTER FROM PRESIDENT'S CONFERENCE
TO PRESIDENT ELECT JIMMY CARTER
PLAINS, GEORGIA

As representative of many American Citizens we thank you for all your concerns in regards to solving America's need for energy independence. As Jews concerned with Israel's survival and concerned with American Freedom and economic independence from foreign energy resources, we would like to offer on behalf of our constituent organizations any help we can towards solving America's energy needs.

We have appointed a Chairman who will be in charge of energy affairs, whose goal will be to work with whatever bodies are concerned with American energy independence. His job will be to coordinate our constituent organization and as many individual members as possible who are willing to take part in all phases of energy independence.

I would like to strongly suggest that this individual, who would be highly qualified, would be able to serve besides our energy Chairman, some official capacity on a National Energy Board. Thus, he will be able to help mobilize our members and at the same time the added prestige in being part of a National energy board would help him in his dealings with our constituent organization and members.

Therefore, we would like to submit the attached resume' of the individual concerned with a few letters of recommendation and hope that you will consider these thoughts.

With best personal regards

Rabbi Schlinder

cc: Other contacts

P.S. The above is just an idea that I believe should be considered.

Cal x Rth

2

December 21, 1976

Mr. Steven L. Spiegel
9701 Wilshire Blvd. #700
Beverly Hills, CA. 90212

Dear Mr. Spiegel:

Many thanks for sharing with Rabbi Schindler the two papers on Oil. He is out of the office for the next two weeks but these papers will be brought to his attention immediately on his return and he will, of course, share his comments with you.

With kindest greetings, I am

Sincerely,

Edith J. Miller
Assistant to the President

With the Compliments of

Steven L. Spiegel

We would greatly appreciate your comments on this/ese paper/s
as well as on other papers you have received and not yet
commented on.

Thank you !

WORLD OIL: CHALLENGES AND OPPORTUNITIES

The purpose of this paper is to suggest an alternative point of view regarding the price of oil. The conventional wisdom today is that OPEC's near-monopoly control of the world's oil markets will last well into the 1980s, if not beyond. We challenge this point of view and suggest that a more probable outcome will be a gradual erosion of the cartel's position over the next few years. We do not foresee OPEC falling apart with earthshaking events of the sort that occurred when the cartel burst onto the world scene in late 1973 in the wake of war, an oil embargo, and quadrupled prices. Rather, we believe that natural economic forces will gradually work toward a reassertion of the market power of the oil-consuming nations between now and 1980.

The policies devised by the U.S. and other Western governments to take advantage of this market shift will in large part determine the future viability of the cartel. Serious political considerations may suggest that the core Mideastern nations of OPEC may be vital to the security of the Free World, and that attempts to combat the cartel on purely economic grounds might well be contrary to our international political interests. While it is beyond the scope of this analysis to challenge that position on political grounds, we would suggest that the ability of the cartel to impose monopoly prices on the world's oil markets is an equally serious consideration on economic grounds.

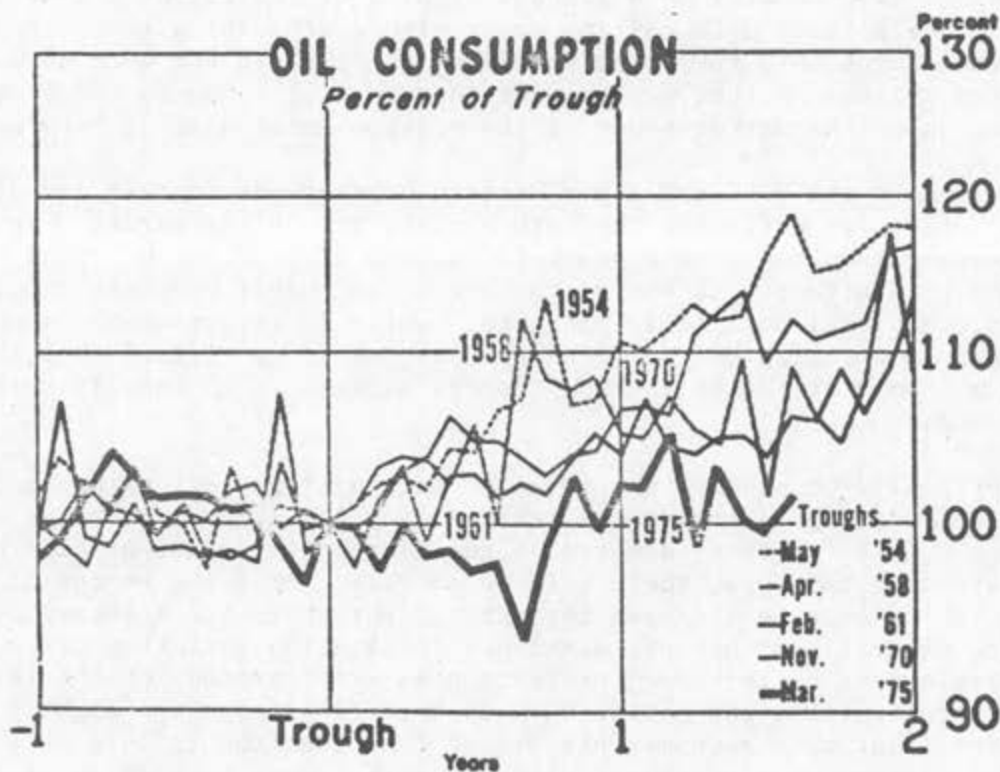
The world has not really adapted to the price of international oil maintained by the strength of the oil cartel. The mounting international debt of many developing countries and of some industrialized nations is one important symptom of the disruptive nature of high oil prices. As long as large OPEC surpluses continue, there will be an ever-increasing burden of deficits in the oil-importing nations which must be financed through the international monetary system. Chronic international payments deficits can set off a vicious devaluation-inflation cycle, which in turn brings about high unemployment or increased protectionism--key symptoms of the failure of the economic adjustment process. Lest the seriousness of this problem be too lightly dismissed, it is important to remember that most economic historians feel that the failure of the international economic and financial system was a principal element in the Great Depression of the 1930s. Measures taken in the 1930s to defend against these deficits emphasized exchange controls and protectionist trade policies which contributed to a sharp contraction in world trade, an end to economic prosperity, and the ultimate rise of a destructive economic nationalism.

While the world has learned much about economic cooperation since the 1930s, economic history should remind certain OPEC members that many of their aspirations cannot be achieved except at considerable expense to the rest of the world. The strategy of achieving economic development by imposing high oil prices upon the rest of the world contains certain risks to OPEC as well as to the oil-consuming nations, both developed and developing. The world recession of 1980-1982 was in large part the result of the oil price shock; the slow recovery of the world's economy may be another. But it is precisely this slow economic recovery, with its limitations on increasing social goals, that will likely cause the gradual erosion of the strength of the cartel itself. We believe that it is important for both Western policymakers and the governments of OPEC to understand the nature of this process.

World Petroleum Demand

In 1976, world petroleum demand will probably increase some 5.5% over its 1975 level. This compares to declines of 4% in 1974 and 3% in 1975. These figures mask, however, the fact that a substantial portion of the 1976 demand increase is the result of major increases in inventories, caused by the necessity to restock oil supplies after substantial liquidation in 1975 and by the desire to purchase crude oil prior to the anticipated OPEC price hike for 1977. World oil consumption, excluding inventory changes, is rising at a rate far below its historic average. Preliminary evidence suggests that oil consumption in the major OECD countries rose about 3.5% during the first half of 1976, while industrial production was rising at better than a 10% rate. This disparity suggests that energy conservation measures, especially in industry, are in fact taking hold. In the United States, oil consumption during the first eight months of 1976 has averaged less than 3% above the first eight months of 1975. Chart I compares U.S. consumption during the present U.S. economic recovery to past postwar recoveries. It shows that oil consumption (seasonally adjusted) a year-and-a-half after the trough of the general economic recession is running only marginally above its rate at the trough. This compares to an average gain of close to 10% at the same stage of prior recoveries.

CHART I



Source: U.S. Department of Commerce and Interior, Seas. Adj.

For 1976 as a whole, we expect world oil consumption to increase about 2%, a rise which will not bring it back to its 1974 level. Because of an expected increase of 700,000 barrels per day in worldwide inventories, however, total demand for oil in 1976 is likely to surge by 5.5%.

Table I

WORLD PETROLEUM DEMAND					
	(MMB/D)				
	1973	1974	1975	1976	1977-----1980
U.S.	17.5	16.9	16.5	17.1	17.8-----19.3
Canada	1.8	1.8	1.8	1.9	2.0-----2.3
W. Europe	15.7	14.7	14.0	14.4	15.1-----16.3
Japan	5.5	5.3	5.1	5.4	5.7-----6.5
Other	8.8	8.7	8.6	8.6	8.8-----9.6
Total Consumption:	49.3	47.4	46.0	46.9	48.3-----53.0
Change in Inventory:	--	+1.0	-0.9	+7	-- --
Total Demand:	49.3	48.4	45.1	47.6	48.3-----53.0

DEMAND GROWTH RATES			
Historical		Projected	
1955-70	6.8%	1975-76	5.5%
1970-73	7.3%	1976-77	1.5%
1973-74	-3.9%	1977-80	3.2%
1974-75	-2.9%	1975-80	3.5%

Table I shows our forecast of about 3% growth in world oil consumption in 1977. Nevertheless, total demand, which includes the change in worldwide inventories, is expected to grow by only 1.5%. This difference may be accounted for by our assumption that there will not be any increase in inventory levels during 1977 beyond those reached in late 1976.

We are, therefore, suggesting that 1977 world oil demand will still not attain the peak level reached in 1973. This forecast is based upon a structural change in the relation between economic growth and oil consumption. Whereas in the past worldwide oil consumption grew at rates equal to or greater than overall economic activity, we are assuming that worldwide oil demand will grow in the future at a rate of around two-thirds the gain in the world economy as a whole.

Our forecast also takes account of the widespread slowing of the world's economies in the latter half of 1976. Although the decline in the rate of real growth does not, in our judgement, foretell another worldwide recession, it does mean that oil consumption will be even further depressed than might have been the case without the current economic pause.

As a result of these considerations, we are projecting a 3.5% average annual growth in world oil demand over the 1975-80 period. (This works out to a 3.2% growth over the 1977-80 period.) This forecast is consistent with the expected 5% average annual growth in real economic activity projected for the OECD countries.

World Petroleum Supply: Non-OPEC Sources

Table II shows that between 1973 and 1976 non-OPEC oil sources as a whole have experienced only a minor production decline, although there has been some shift away from North America to other parts of the world. In particular, the approximately 1.5 MMB/D decline in North America has been offset for the most part by small gains in Latin America, Europe and Asia. Sino-Soviet exports to the noncommunist world have also increased. With the advent of Alaskan and North Sea oil we believe that non-OPEC sources of petroleum will grow by close to 1 MMB/D in 1977. This will just about meet the likely increment in 1977 world demand. Beyond 1977, it is likely that non-OPEC oil sources will be coming on stream even more rapidly. We expect an increase of over 6 MMB/D between 1977 and 1980 in oil production outside of OPEC.

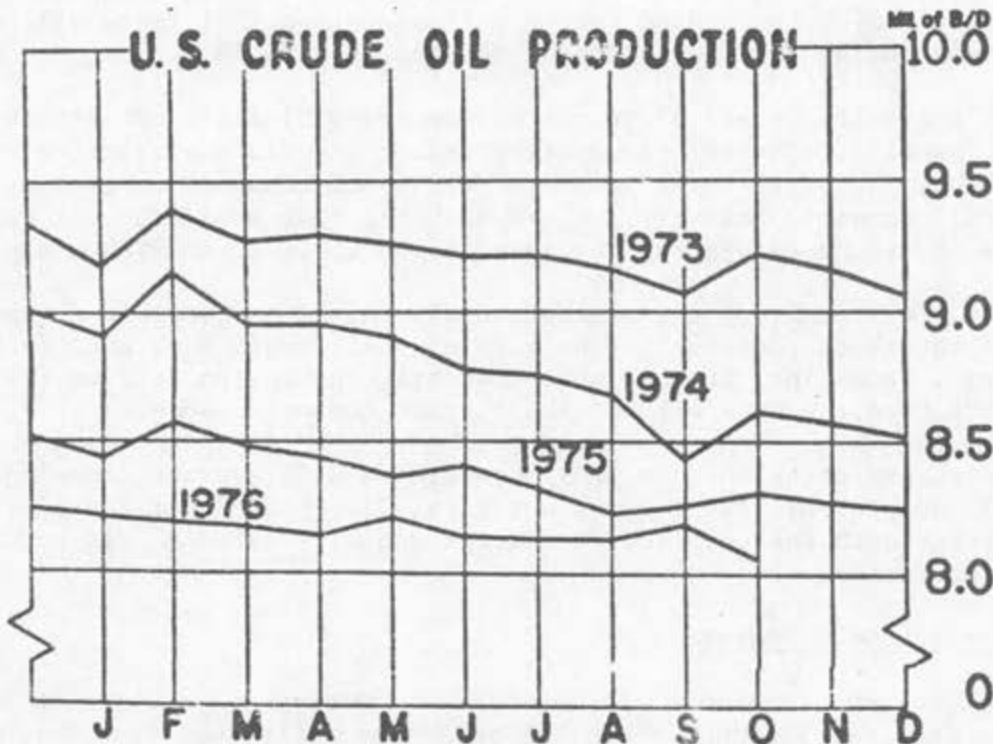
Table II
WORLD PETROLEUM SUPPLY: NON-OPEC SOURCES
(MMB/D)

	1973	1974	1975	1976	1977-----1980
U.S.	11.4	11.0	10.5	10.2	10.4-----12.3
Canada	2.1	2.0	1.9	1.8	1.7----- 1.7
Europe	.3	.4	.6	.8	1.4----- 3.6
Rest of World	3.6	3.7	4.0	4.2	4.4----- 6.6
Sino-Soviet	.8	.9	1.0	1.0	1.0----- 1.4
Total:	18.2	18.0	18.0	18.0	18.9-----25.5
World Demand:	49.3	48.4	45.1	47.6	48.3-----53.0
Required from OPEC:	31.1	30.4	27.1	29.6	29.4-----27.5

*Non-OPEC sources exclude Communist bloc oil production, but include net exports by Russia and China to the non-Communist world.

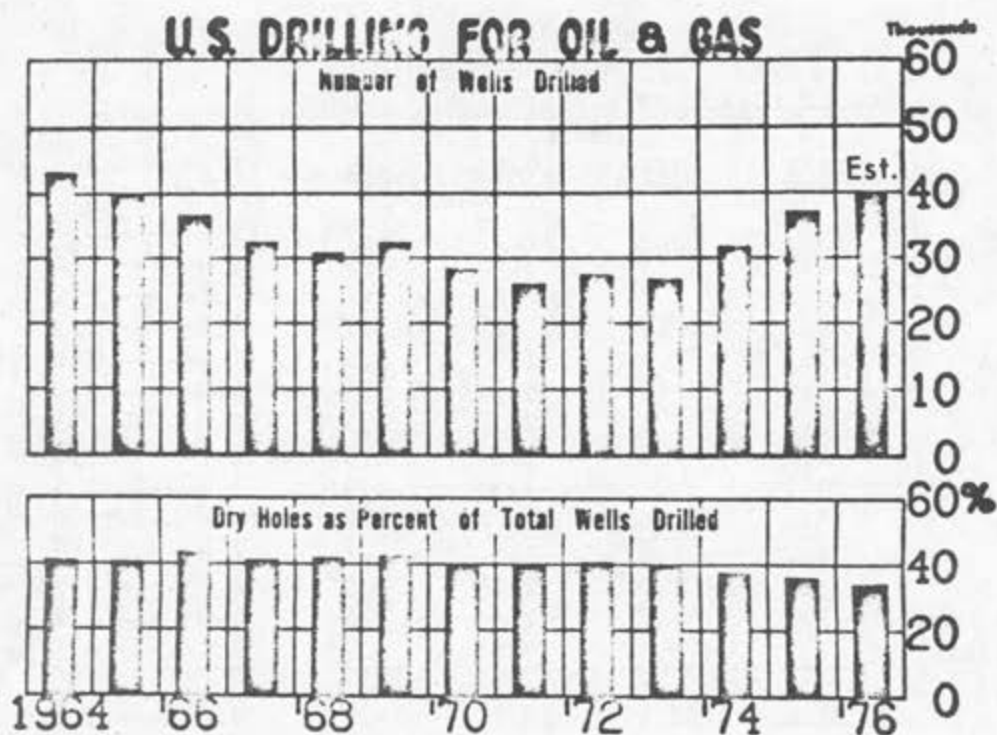
Table II projects an increase of 2.1 MMB/D of U.S. production between 1976 and 1980, primarily because of the Alaskan pipeline. It assumes that oil production in the lower 48 states remains constant at a level of 10.2 MMB/D. These figures include natural gas liquids and refinery processing gains, as well as crude oil production. With the opening of the Elk Hills Naval Reserve and the deregulation of prices for secondary and tertiary oil production, we believe that the U.S. can at least arrest its past declines in mainland oil production. Chart II below shows that U.S. crude production has been declining at a decelerating pace for the past three years, while Chart III shows the marked increase in U.S. drilling since 1974.

CHART II



Source: U.S. Dept. of Interior, Bureau of Mines.

CHART III



Source: American Petroleum Institute

Additional large sources of new oil production will be the British and Norwegian North Sea with a gain of almost 2.5 MMB/D between 1977 and 1980. Other parts of the world with significant new oil gains include Mexico, Brazil and Southeast Asia. Smaller new areas of increased oil output are in Africa, the Far East and other parts of Latin America. We also expect Sino-Soviet exports of oil to the West to continue to increase, especially as hard currency financing of Soviet deficits become more difficult and as the Chinese gradually move toward a more pragmatic management of their economy.

World Petroleum Supply: OPEC

OPEC oil production reached its peak in 1973 at more than 31 MMB/D. By 1975, it had fallen to around 27 MMB/D. The economic recovery during the first half of 1976 spurred OPEC production to a six-month average rate of 28.6 MMB/D; in June the rate was almost 30 MMB/D, and by September it had exceeded 30.5 MMB/D. A major reason for this sharp increase in OPEC production has been the inventory buildup by consumers seeking to purchase oil prior to the anticipated price increase likely to take effect in January 1977. We are estimating 1976 OPEC production to average 29.6 MMB/D, more than 7% above the 1975 level.

Table III divides the OPEC countries into two groups. First is the group of large population countries that presumably would need a minimum level of oil exports to sustain their plans for rapid economic development. Despite the fact that both Venezuela and Nigeria have stated plans to limit production in order to conserve their oil for the longer run, neither country would choose to produce less than 2 MMB/D, and each would likely opt for something closer to 2.5 MMB/D as a long-term target. The rest of the large population countries are maximum producers that generally produce oil to the physical limits of their capacity.

Table III

WORLD PETROLEUM SUPPLY: OPEC SOURCES
(MMB/D)

	1973	1974	1975	1976	1977	1980 Case A	1980 Case B
<u>Large Population Group:</u>	16.0	16.0	14.4	14.9	15.4-----	14.7	18.8
Algeria	1.1	.9	.9	1.0	1.0-----	1.0	1.1
Ecuador	.2	.2	.2	.2	.2-----	.2	.5
Gabon	.1	.1	.2	.2	.2-----	.2	.3
Indonesia	1.3	1.4	1.3	1.5	1.5-----	1.6	1.9
Iran	5.9	6.1	5.4	5.7	6.0-----	5.0	6.5
Iraq	2.0	2.1	2.3	2.0	2.3-----	2.5	3.5
Nigeria	2.0	2.2	1.8	2.0	2.1-----	2.1	2.5
Venezuela	3.4	3.0	2.3	2.3	2.1-----	2.1	2.5
<u>Small Population Group:</u>	15.1	14.4	12.7	14.7	14.0-----	12.8	8.7
Libya	2.2	1.7	1.5	1.9	2.0-----	1.9	1.7
Kuwait	3.0	2.5	2.1	1.8	2.2-----	2.2	1.9
U.A.E. & Qatar	2.2	2.2	2.1	2.5	2.5-----	2.2	2.1
Saudi Arabia	7.7	8.0	7.0	8.5	7.5-----	6.5	3.0
<u>Total OPEC:</u>	31.1	30.4	27.1	29.6	29.4-----	27.5	27.5

Case A: Assumes each major OPEC group produces approximately in proportion to the 1975 allocation.

Case B: Assumes maximum production by large population OPEC members, with small population members--primarily Saudi Arabia--absorbing the production declines between 1977 and 1980

The small population OPEC members consist of Libya and the Arab Gulf Coast states. These countries have the option of producing more or less oil depending upon what they perceive to be their own self-interest. Because of its immense oil reserves, Saudi Arabia is the leading country in this group. At the present time, Saudi Arabia could produce as little as 3 to 4 MMB/D, while still maintaining a high standard of living and meeting a practical set of development goals. Yet Saudi Arabia has the capacity to produce 11.5 MMB/D today; by 1980, its productive capacity will likely rise to 14-15 MMB/D. As a result, Saudi Arabia is the acknowledged focal point of the OPEC cartel and can act much as the Texas Railroad Commission once did in prorating oil output.

Table III shows that the 3.3 MMB/D decline in OPEC oil output between 1974 and 1975 was divided about equally between the large population OPEC members and the small population group. In 1976, the large population group increased its production by only 500,000 barrels per day, while the small population group gained 2 MMB/D, with Saudi Arabia accounting for three-quarters of the increase. There is likely to be strong pressure, therefore, to increase production in the large population OPEC countries in 1977, to some extent at the expense of the smaller population countries. As a result, we expect Saudi production to fall 1 MMB/D in 1977, while the larger population group, especially Iran, will attempt to increase production as much as possible.

OPEC production is probably now reaching its peak level for this decade. Table III shows our forecast of a decline in OPEC production to 27.5 MMB/D by 1980, primarily because increases in non-OPEC production will more than match the expected increase in demand. This decline in OPEC production over the 1977-80 period will put a severe strain on the cohesion of the cartel. We have projected two contrasting scenarios for the allocation of OPEC production in 1980. We expect

neither of these polar cases to occur. The most likely outcome will be a negotiated settlement somewhere between the two extremes.

In Case A, we assume that each major OPEC group produces approximately in proportion to the allocations of 1975, a year of depressed OPEC output. As noted in Table III, OPEC output has expanded sharply in 1976 and is likely to continue at this high production rate in 1977. Yet, by 1980 we expect OPEC's production to decline once again. In projecting the allocation of 1980 OPEC oil output among the cartel members, Case A assumes that the larger population OPEC members would suffer only a marginal decline in their production between 1976 and 1980, while over the same period the smaller population members will experience a sharper decline of around 2.5 MMB/D. This scenario suggests that Iran would be content with a declining level of output and that Iraq would achieve only moderate output gains. Potential friction is inherent in this case, since it assumes that Saudi Arabia would be unwilling to cut back enough to enable Iran and Iraq to expand production to the extent that would meet their desires for growth.

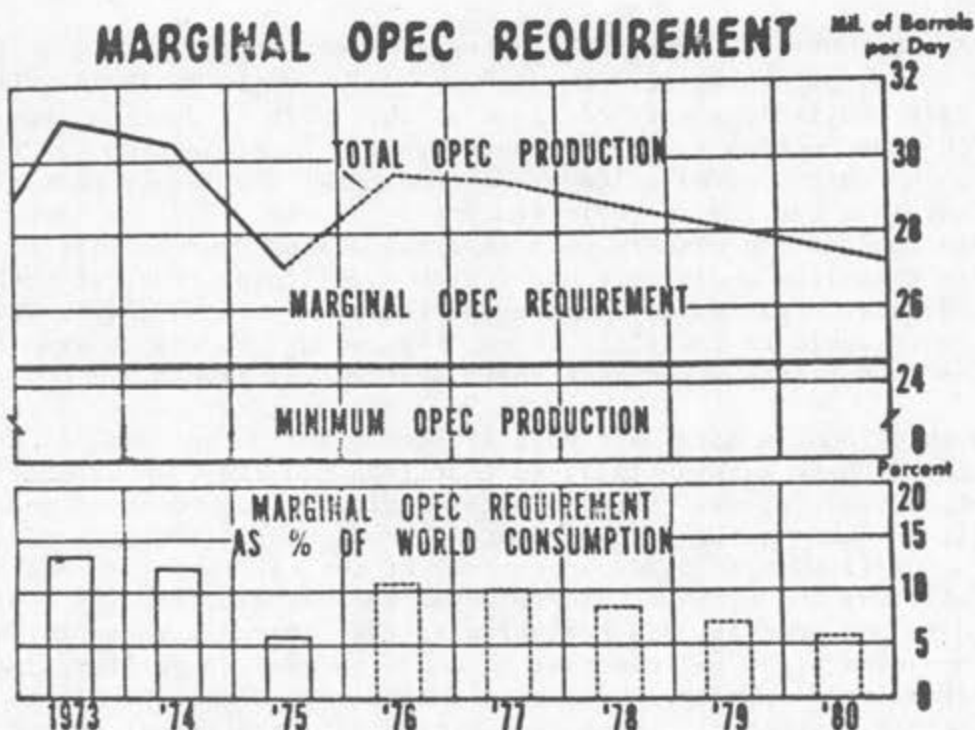
Case B assumes that Saudi Arabia (and to a limited extent other smaller population OPEC members) is willing to cut back substantially so that Iran and Iraq can produce to the maximum. In particular, we believe that at the extreme Saudi Arabian output could be reduced to a level of 3 MMB/D by 1980, if it chooses to fully accommodate its neighbors' aspirations. The instability in this extreme is the difficulty of Saudi acceptance of two increasingly powerful states in the Persian Gulf, whose military and economic growth would rapidly outstrip its own. In this scenario, pressure would be put upon the oil companies to take increasing quantities of Iranian and Iraqi crudes. The companies might be reluctant to do so because of quality, logistic, and profitability considerations. Finally, the Saudis themselves, although able to afford the production cutback financially, might be averse to seeing their traditional market shares so severely eroded.

Conclusions

In a prior study we argued that over the 1975-80 period OPEC's minimum production level required to sustain its member countries' respective development objectives was in the 24-25 MMB/D range.* This estimate was based on a detailed assessment of each country's oil-producing capacity in comparison with its foreign exchange needs to import Western goods and services. We continue to believe that the general conclusions of that study remain valid, although the non-OPEC sources of supply have not materialized to the extent which we thought possible two years ago. As a result, our current projection of total OPEC production in 1980 is about 3 MMB/D higher than in our previous study. Nevertheless, if our projection of a 27.5 MMB/D rate for 1980 OPEC production is at all realistic, the world would need only around 3 MMB/D more from OPEC than its minimum production levels. Chart IV shows that this marginal OPEC requirement in 1980 would represent only around 6% of world oil consumption, down from almost 15% in 1973-74. International energy policy should recognize that this developing trend will create a situation where a modest program of energy conservation could be highly successful in coping with the cartel. Reducing world oil demand by 3 MMB/D in 1980 seems a reasonable target for an effective international energy conservation policy and would make it difficult for OPEC to determine oil prices unilaterally.

*See Outlook for World Oil: Prices & Petrodollars, View From One Wall Street, Irving Trust Company, March 1975. Also published in Business Economics, September 1975.

CHART IV



Source: Historical Data by American Petroleum Institute
Projections by Irving Trust Co.

The preceding analysis suggests that during the next few years efforts to contain the continuing rise in international oil prices may prove more successful than in the past. A slowing in the growth of world oil demand and the expected rapid increase in non-OPEC oil sources imply that OPEC production should peak late in 1976 and then gradually decline to 1980. OPEC will be most vulnerable to consumer pressures during this period, since a number of the more heavily populated OPEC member nations will have an incentive to expand oil production at a time when world demand for total OPEC oil will be gradually declining. They can only expand output at the expense of the more sparsely populated OPEC countries. If Saudi Arabia alone reduces output to offset increased production by the populous OPEC nations, it could be reduced to production levels by 1980 which even it might find intolerably low. As another alternative, if Saudi Arabian production in 1980 were held near current levels, other OPEC members would be forced to cut oil production below levels which would permit the planned implementation of economic development programs already in progress.

U.S. international oil policy should recognize the likelihood of this natural friction within OPEC. The period ahead offers the opportunity to limit the cartel's power over the world oil market and to reach a more healthy accommodation with the legitimate aspirations of its member governments.

The North-South dialogue now going on in Paris among representatives of the OECD countries, OPEC, and the non-oil developing countries offers a useful form in which to discuss the issues surrounding the price of international oil. We have argued before that some kind of market exchange system would be a better mechanism for determining the price of oil than an international treaty based upon political perceptions of a "fair" price.* We do not accept the replacement

*See, View From One Wall Street, International Commodity Issues, November, 1975, and

cost of synthetic energy sources as a realistic basis for oil pricing; nor is the indexing of oil prices to world inflation a useful departure point for international oil negotiations. Both pricing approaches make little economic sense in the long run and would simply add to the misallocation of the world's resources, both physical and financial. A market exchange system for oil, possibly regulated by representatives of both consuming and producing nations, would be a more useful approach. And it is over the next few years, when the consuming nations may well be able to exercise significant market influence over the OPEC states, that this approach might be successfully applied.

Arnold E. Safer

An Antitrust Approach To Oil Problems

The basic thrust of this paper is that high OPEC crude oil prices, which are very harmful to Israel, could be reduced by actions of the United States government. High oil prices provide Arab countries with the wherewithal to acquire immense quantities of arms, and to acquire political influence directly and through purchases. High oil prices strengthen the economic power of the major oil firms who have an interest in helping the Arab countries obtain friendly receptions here, and who have an interest in keeping production centered in the OPEC resources they control. General action to reduce the price of oil would involve regulation and restriction of the relationships among major oil companies, and among the OPEC states. The actions would also involve restructuring the petroleum industry to eliminate the major companies market dominance and their incentives to cooperate with one another and with OPEC. Restructuring actions should include legislatively mandated divestiture by the eight largest petroleum companies and their holdings in alternative fuel sources, and like separation of control of crude production, crude and product pipelining, and refining-vertical divestiture. It should also involve reorganization of the government agencies currently regulating energy matters to alter the consistent course of pro-OPEC, anticompetitive action that has characterized government action in areas such as FEA regulation, and the "International Energy Agreement."

A pro-competitive policy is needed in petroleum if the OPEC-major oil company relationship is to be broken. Unless the

relationship is broken, the economic power of OPEC countries is likely to continue to grow with concomitant increases in their political power, and increased pressure for a "more evenhanded" U.S. policy in the Middle East.

Many of the "legislative tools for a pro-competitive policy are available today, if the government has the will to use them." Legislation would only be required for longer-term solutions. For short-term, pro-competitive approaches, present legislation is sufficient.

A pro-competitive policy could proceed with some rapidity to deal with matters such as agreements among major oil companies and OPEC countries (such as the proposed ARAMCO Agreement), with the International Energy Agreement, with disposal of the federal domain, and with the marketing of oil from the North Slope.¹ In this way, beneficial results could be achieved in a few years. Measures such as conservation or the development of new fuel sources are unlikely to show results until ten or more years are past.

OPEC and THE MAJOR OIL COMPANIES

The Organization of Petroleum Exporting Countries has sought to raise prices of crude oil from member states. To do this, the output from OPEC countries must not be so great as to exceed the demand for petroleum at a given price level and members of OPEC must not 'cheat' on their cartel partners by selling more oil at discounted prices. If "cheating" starts it is likely to spread rapidly as individual OPEC countries

1. Similarly, a properly procured strategic petroleum reserve could provide near-term production against boycotts and enhance

scramble to maintain incoming revenues.

When an effort is made to raise prices, demand, being somewhat elastic, declines and some producible capacity must be shut-in. Elsewise, the opportunity and incentive to sell crude at lower prices becomes quite strong. Then other parties begin meeting competition, distrust grows among cartel partners, and the unused production capacity is opened up in an effort to capture sales and revenues. To raise and maintain prices, production by OPEC countries must be controlled-prorated. The OPEC countries have never been able to prorate production or to set price difficulties among different crude oils. OPEC relies upon² the major oil companies for its proration.

Currently, ARAMCO production in Saudi Arabia is the principle swing unit in the OPEC cartel. This production is moderated or increased so as to follow market demand while permitting other OPEC'ers to maintain production and to not cut prices.

2. Supply restrictions to maintain prices have a very long history. For many years, the Texas Railroad Commission would receive nominations from oil companies indicating the size of their markets (at prices reflecting Railroad Commission Control) and would then issue pro-rationing orders determining allowed production levels. The pro-rationing system involved, and still involves, commissions in a number of oil producing states, operating together through the Interstate Oil Compact Commission.

Statutory authority for the IOCC recently lapsed after its anti-competitive role had been criticized by reports of a long series of Attorneys General serving under every President since, and including, Eisenhower.

ARAMCO, like the Texan Railroad Commission domestically, receives periodic nominations from its member companies: Exxon, Mobil, Texaco, Standard Oil of California. The off-takes permitted Gulf, Shell and BP from Kuwait are publically known; and the ARAMCO partners, who are also the major operators of production in Iran and Indonesia, set ARAMCO production levels so as to maintain OPEC prices while moderating their off-take elsewhere. In keeping with this swing unit role, for some years ARAMCO partners who took more than their forecasted amount of curde were penalized.

Saudi petroleum production can be employed as the swing unit whose output follows demand because of the volume of Saudi production and because reductions in Saudi production do not have the negative effects that reductions would have in populous countries such as Iran, Indonesia or Nigeria (to a point). Saudi production must however pay for the rapidly increasing costs of that nation's arms and development programs. This places a floor on the Saudis ability to cut back on sales. The minimum production level the Saudis require is unclear. Based on estimates made by Theodore H. Moran of Johns Hopkins, this level is between seven and eight million barrels a day.

The Saudi government, and other oil producing nations, recognize that OPEC's ability to raise prices is dependent upon the cooperation of the major oil companies acting as pro-rationing agents. Only these firms have the network of production and marketing facilities required to pro-ration supply production and to prevent use of excess supply capacity to undercut present prices.

Petroleum can not be extensively marketed unless use is made of a crude pipeline, a refinery, or a product transportation facility of a major company, or an exchange with such a company, and often times a major company participates in the crudes' production. The major pipelines are usually jointly owned by a syndicate involving one or more majors.

The major petroleum companies are vertically integrated into each of the phases of petroleum production and they are diagonally integrated among themselves through an extensive network of direct and indirect interlocks among boards of directors, common large security holders, joint enterprises in large projects such as ARAMCO, TAPS, the Colonial-Plantation product pipeline systems, the Explorer pipeline, Capline, the interconnected private pipeline system in California, Santa Ynez, the LOOP and SEADOCK deepwater port proposals, and through an extensive system for the exchange, rather than purchase and sale, of crude oil and products. These large projects both control a large absolute portion of oil supply, and are the key sources of large incremental supplies.

With this range of control, the majors can move to support and make OPEC price decisions practicable, confident they will not be undercut by others.

The major oil companies recognize OPEC's dependency upon them and the benefits they receive from high prices. The arrangements among major oil companies and OPEC countries provide that a portion of the benefits of high prices go to the companies, and that the companies receive preferred access to crude production at prices less than those charged others. Moreover, high OPEC prices and restricted supply enhance the value of the major's assets outside

of OPEC.

The ability of the major petroleum companies - particularly the Seven Sisters'- to proration arises out of their control of petroleum transportation and refining facilities, and their extensive positions in non-OPEC energy resources.

Historically, anti-competitive conditions in one market can only drive prices up to the point where buyers substitute an alternative product or service (or do without). Needs for energy are such as to greatly limit the ability of many buyers to do without - many energy demands are derived.

The principal class of buyers who can sometimes substitute one fuel for another are electric utilities and larger industrial boilers. Because of space and pollution control requirements, the greater part of this inter-fuel competition is for service to new units, under large quantity long-term contracts. The very large petroleum companies have acquired substantial holdings in the coal, uranium, and geothermal industries. These large blocks of holdings must often be used to supply large utility fuel contracts. The large oil companies, by refusing to produce alternative fuels at prices less than those for oil (or for lesser returns including opportunity costs) limit the availability of substitute fuels.

The nuclear fuels industry is highly concentrated in its various phases - and a substantial portion is controlled by petroleum companies.

Major and other large coal companies have acquired, often by merger or federal lease, very extensive holdings of low-sulfur, cheaply mineable western coal.

Besides these companies only a few western utilities and large still-independent coal companies have resources large enough to support utility fuel contracts.

Petroleum companies such as ARCO, Mobil, Exxon and Gulf Oil are not likely to develop their coal resources for production at prices returning on investments less than that available to petroleum: the profits must, furthermore, be net of any lost petroleum or uranium sales.

Moreover, the provisions of federal coal leases are such that holding costs are quite low so that coal can be held upon speculation of rising prices. A similar situation pertains¹ in geothermal energy.

The high profits of petroleum place the major petroleum companies in a position to outbid others to acquire energy resources.

The non-competitive conditions in energy supply are the product of prior government actions.

1. Geothermal leases on prime prospects are largely held by petroleum companies or enterprises which function as service firms for petroleum companies.

Government Action

Possessing a different attitude toward competition, the federal government could take steps to impair the sweetheart arrangements among major oil companies and OPEC. The government could accomplish this by prohibiting the types of arrangements now entered into among those parties and by interposing itself as a direct purchaser of imported petroleum.

Under present law, the President is authorized to interpose the United States as sole importer of oil to this country. Moreover, on a more limited basis, the United States purchases¹ oil for the Strategic reserve and for the Defense Department. These purchases could be arranged so as to by-pass participation agreements.

As an importer, the United States could encourage secret bidding by independent and national overseas sources. Such secret bidding would encourage national companies having shut-in capacity to discretely shave cartel prices. The profit incentive found in participation agreements could be regulated away.

FEA legislation instructs that agency to seek to countermand the effects of cartelization (15USC 753(b)(1)(D) and (F) and (I); 15USC 764(b)(5)) That agency has authority to require disclosure of and control participation agreements and to redistribute to others economic rents obtained under participation agreements through its price controls.

1. Section 13(a) of the Emergency Petroleum Allocation Act authorized the United States to exercise an exclusive right to import and purchase all or any part of foreign origin crude oil imported to the U.S. This section was enacted as Section 456 of the Energy Aid Policy Conservation Act, P.L. 94-163, 15USCA760(b), 89 STAT 956-58. It is appended.

TECHNICAL AUTHORITY to CONTROL IMPORTS

The authority given the President to exclusively import some or all petroleum from abroad is found in the Energy Petroleum Allocation Act. This authority could be exercised to disrupt company-OPEC relationships, and induce cheating by OPEC countries; it would be best exercised if directed to creating a commodity-type market in which importers would be required to offer their oil.

Creation of a crude oil commodity market in which crude oil could be anonymously offered and acquired would disrupt the chain of downstream control exercised by major oil companies. It would also permit OPEC countries and their national oil companies to secretly sell below cartel set prices. In an active commodity market, anonymity would not depend on government's ability to keep a secret but rather could be achieved by use of straw-men trading limited lots in an overall higher volume of trading.

To create a commodity market, oil imported by others could be required to be transferred to the government for resale by it; thus oil and oil purchased abroad by the government could be offered for sale by the government in regular sized lots that would be sized so as to promote a volume of trading and a number of traders. The government could immediately resell oil it acquired, so as to stimulate a commodity market, with the prior government purchases and volume providing anonymity. Floating and on-shore storage facilities required for such a market would provide both an "overhang" and a part of the strategic reserve.

The market would give all firms access to important crude. By direct purchases from national companies, the government would be by-passing participation agreements and their mark-ups. By combining direct purchases with competitively actioned sales, the respective advantages of negotiated acquisitions and secret bidding would be secured.

In support of the commodity market, the government could require importing firms (or their affiliates) holding foreign participation or conversion agreements to submit existing agreements for approval, and could prohibit further such agreements sans prior approval. It could require such firms to submit delivery plans - which it would not disclose, and it could engage in direct purchases and tanker charters to assure continuous trading.

Government could thereby create (and as necessary intervene to maintain) a commodity market. The ability of oil companies to be "tax collectors" for OPEC would be disrupted and unlike a system in which petroleum exporting countries merely bid for tickets to import oil into this country, as has been proposed, OPEC's prices are likely to be reduced.

Strategic Reserves

The Emergency Petroleum Allocation Act, as amended, seeks to protect the United States against the effects of interruptions of oil imports and to lessen or avoid effects of oil price increases.

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To that end, a strategic petroleum reserve is authorized (Energy Policy and Conservation Act) which is planned to be¹ developed in the following increments:

40 million barrels	October	1977
150 million barrels	December	1978
325 million barrels	December	1980
500 million barrels	December	1982

FEA plans to spend \$440 million in FY 1976 to procure such oil. This oil could be produced in ways that would encourage price cutting by OPEC'ers.

FEA Regulation to Capture Rents from Holders of Participation Agreements

Crude oil prices are subject to control pursuant to Section 4 of the EPAA, 87 STAT. 628. Pursuant to Section 4(b)(1)D controls over prices and quantities are to be exercised so as to preserve an economically sound and competitive petroleum industry. Section 4(b)(1)F requires that regulation seek to equitably distribute crude oil at equitable prices among the sectors of the petroleum industry.

This use of FEA regulation would be fully consonant with a basic purpose of economic regulation: the redistribution of profits resulting from non-competitive markets.

If holders of participation oil were required to offer this oil for sale at acquisition prices, net of participation contract profits over a specified rate of return on investment, the incentive to pro-rata for OPEC would be gone.

1. Section 15 of the EPAA authorizes imposition of storage requirements on importers and refiners.

It should be noted that FEA also has unused authority to require that participation agreements be submitted. It also has authority to require the reporting of divisional results on the basis of uniform accounting. These authorities are unused.

It is arguable that the present authority conferred by the EPAA authorizes the banning or restriction of participation agreements by firms doing business in this country. Such restriction is based on the inequitable and anti-competitive consequences of such agreements and their tendency to uphold the cause of the emergency sought to be alleviated.

International Energy Agreement

Currently, rather than seeking to loosen the ties that bind OPEC countries and major petroleum companies, the present Administration has fostered such links. A principal action to this end is the International Energy Agreement.

The IEA is supposed to be an international consumers union for petroleum importing countries. A major part of its work is supposed to be the fair allocation of oil in the event of a supply curtailment. This allocation process just happens to be delegated to a group of supply experts who are employees of large oil companies "and who will be at the heart of the allocation process in the event of an actual emergency".¹

1. Federal Trade Commission, Report to the Congress and to the President Pursuant to the Energy Policy and Conservation Act of 1975, September 21, 1976, page 7.

Planning for such emergencies involves a number of meetings among these experts. It was foreseen prior to IEA that such meetings might raise antitrust problems. The Energy Policy and Conservation Act, Section 252(f) (89 STAT. 871) provides for a limited immunity from the antitrust laws for actions taken in the course of developing or carrying out the Voluntary Agreement and Plans of Action to Implement the International Energy Agreement.

To reduce the anti-competitive potential of such meetings, Congress provided for a number of safeguards (EPCA §251-255 inclusive). Operations were to be done in a manner subject to scrutiny by the public and by federal antitrust agencies.

Federal Energy Administration and the State Department, however, have insisted that all meetings be completely closed, that no representatives of consumers be allowed to be present, that the 'representation' of independent oil companies be by integrated majors. The whole procedure is being cloaked by an apparent abuse of authority to classify records by the Department of State. The antitrust agencies -- FTC and Antitrust Division -- have given only the most cursory attention to the operation and no substantial regular staff assignment commensurate with the size and importance of the operations involved.

In short, the arrangements intended for an emergency are apparently being perverted to establish immediately an operating cartel immune from any litigated challenge by an outsider; this organization has at least planning control over international oil movements now and will have full responsibility for

allocation and price control, domestically as well as internationally, should an embargo occur.

To date, beginning with the old Voluntary Agreement of April 1975 (under the Defense Production Act) and continuing through the EPCA Voluntary Agreement - there has been an average of two to three meetings per month of either the Agreement group, or related advisory groups, but with:

1. No open meeting of the Voluntary Agreement group, or any of the advisory groups associated with it;
2. No constitution of such Agreement or Advisory group to represent either industrial or private consumers, or in actual fact to represent independent sectors of the industry;
3. No specific findings as to the reasons for closing meetings;
4. Only perfunctory reports by either Justice or Federal Trade Commission as to actions taken under the voluntary agreement or of the agreement in their impact on competition or small business, although EPCA 252(i) requires such a report each six months by each agency.
5. No full surveillance by Justice or Federal Trade Commission, with only a few of the formal meetings actually attended by either, and with no sufficient staff by either agency for the required regulatory analysis.

In short, while the IEA has proceeded, through the voluntary agreement and through advisory committees, to prepare a detailed contingency allocation plan to be actually carried out on a voluntary basis by the international majors, there has been allowed no outside intrusion which might lessen its competitive impact. Since the contingency plan is now reaching the stage of an actual allocations test, during which the "safeguards"

will be still further loosened to permit flexibility of company action, it is imperative that there be some understanding outside the company-FEA-State group as to just what is taking place.

Finally, although the EPCA provisions relating to freedom of information disclosure were intended to be considerably broader than the Freedom of Information Act itself (see EOCA, §252(c)), there has as yet been no disclosure of any information concerning this operation. Particularly, on August 4, 1976, Executive Order No. 11932 was issued to authorize the Secretary of State to classify under the basic classification order (Exec. Ord. 11652 of March 6, 1972) all material acquired by the "Government" under the IEA operation. Significantly, however, that material, while "classified", may be disclosed to persons who do not qualify to receive such information under the basic classification rules. In short, it is apparently being deliberately classified to prevent its disclosure as required under the EPCA.

The effort at concealment corresponds in time to recently "dry runs" of the IEA allocation systems. During these runs the participating companies will meet and exchange information rules requiring verbatim transcripts and communication will be made without the presence of government representatives.

Emergency planning should be by government. IEA antitrust exemptions should be revoked.

-/See, FEA Meeting and Approvals by Administrator and the Attorney General, Voluntary Agreement and Plan of Action To Implement the International Energy Program. 41 FR 41459 et seq. (September 22, 1976).

Leases

The government has the largely unused authority to grant and regulate federal leases for energy resources so that these leases will be developed and not held for speculation. This is the case for OCS petroleum as well as for coal and geothermal energy.

Investigation of the Geological Survey management of leases has indicated poor information on values, disorganization, and a general failure to require production or, where production occurred, to require that it be done at full throttle.

Federal leasing, with its reliance on cash bonus bidding, and lack of real due diligence requirements and delay penalties has created a situation ideal for large firms engaged in speculative withholding of supply while it has diverted large sums into cash bonuses and away from drilling while creating major entry barriers.

Similarly, the Interior Department has permitted offshore oil lines to be private carriers, not available to all would-be shippers.

Production in the OCS is heavily dominated by the very largest oil companies. One case has come to light where control of pipelining gave Mobil access to information and control over production by other shippers on its "MCN" line.

The coal leasing bill, recently enacted over President Ford's veto, seeks to require more competitive coal leasing and due diligence requirements. (Public Law 94-377) A bill to improve OCS leasing was killed very late in the last session and will undoubtedly be revived in the new Congress.

Current Interior Department authority to restrict or open up to others the large firm joint ventures in production or pipelining are unused (except for limits on future joint bidding by the eight largest firms). The authority found in the Mineral Leasing Act pertaining to limitations on acreage holdings by a lessee is not enforced. The provision, 30 USC §187, authorizing lease provisions "to insure the sale of production of such leased lands...at reasonable prices, for the protection of the interests of the United States, for the prevention of monopoly, and for the safeguarding of the public welfare" has been disregarded by the Interior Department.

Coal, and Alaskan and OCS oil are the only domestic energy sources that could provide general competition for OPEC oil. The leasing practices of the Interior Department place these resources and related pipelines and water rights in the hands of the large oil companies who would anticipate user costs from their development.¹

The largest new source of oil - the Alaskan North Slope - is scheduled to be available in initial quantities in 1977. Hearings held in September, 1976, by the Senate Interior Committee indicated that TAPS through-put would be in excess of the West Coast's refining ability, and that the destination of North Slope oil was unclear.

1. See Testimony of Paul Davidson, Hearings on Interfuel Competition, Senate Antitrust Subcommittee, 94th Congress, 1st Session, and Davidson, Oil: Its Time Allocation and Project Independence 2, Brookings Papers on Economic Activity 410, 425-26 (1974).

Suggestions have been made for crude oil exchanges involving shipments to Japan from Alaska, and shipments of OPEC oil to this country.

Also, SOHIO/BP proposes to reduce the natural gas line capacity into California by using part of such a line to ship oil east from southern California to Texas and from there to the Middle West. Both proposals might leave SOCAL importing OPEC oil to California. The proposals, particularly that for exchanges, would carefully avoid disrupting world oil marketing patterns.

The prospective West Coast surplus might, however, be used to lower West Coast prices, and to disrupt the OPEC-Major Oil market pattern. This could be sought by (a) denying the Presidential authorization needed for overseas exchanges of North Slope oil, and (b) by seeking by litigation or statute to reorganize the TAPS ownership eliminating the TAPS present contractual provisions requiring agreement among co-owners in regard to both the amount of terminal storage an owner may have at the outlet of the line, and the through-put capacity.

Longer range solutions to the problem of non-competitive petroleum supply are found in federal research programs, anti-trust action, and industrial reorganization. Some increased competition and supply could be derived by overhauling FEA and its regulations which are very burdensome to smaller enterprises and which encourage¹ in-field drilling rather than exploration.

1. New wells in old fields are considered to produce new oil for which a higher price than "old oil" is permitted.

Research

The federal energy research program should be directed toward encouraging innovation and innovative enterprises. Unfortunately, a great deal of it has focused on raising entry barriers and seeking subsidies for expensive projects that would divert capital (and public attention) from projects or approaches (eg: antitrust) far more likely to lead to the production of economic energy¹ in the next decade.

A non-political independent overview of federal research programs is badly required.

Antitrust

Antitrust enforcement in the area of petroleum industrial structure (as opposed to industrial behavior) is notoriously weak. The government has allowed a major merger movement to roll along, has taken no action even in the face of Antitrust Division staff recommendations regarding major joint venture pipelines such as Colonial, or in regard to OCS joint endeavors among major firms, and, as noted heretofore, has failed to enforce provisions regarding the IEA. The Federal Trade Commission's proceeding regarding refining in the Eastern part of the country, In re Exxon, has been allowed to become hopelessly entangled in procedural complexities. It is now, and has been for months, relegated to the agency's back burner.

1. The quest for solar energy may yet prove to be a model of the problems of politics in technology. For electric power production, firm power is required if value is to be given to capacity (kilowatts) and not just energy (kilowatt-hours). This leads to a requirement for back-up capacity for interruptible solar generation.

When the per-kilowatt costs of interruptible solar power are added to those for a storage system, the cost per kilowatt is far above that for alternatives. See (as an example) Pollard, *The Long Range Prospects for Solar Energy*, 64 *American Scientist* 424 (July-August 1976)

The private meetings between ARAMCO members and the Saudi government are a splendid example of the "now is not the time" attitude at Justice that seems to have stayed when John Mitchell left. Similarly, the SOCAL acquisition of a controlling interest in AMAX, a large holder of western coal and uranium, went unchallenged.

With IEA, FEA, and joint enterprises, the tendency to cooperation, no competition, is strong in the energy industry. A revived Antitrust Division is necessary.

Vertical Divestiture

The market portion of the major oil companies enables them to act as pro-rationing agents for OPEC. This market position is based on their simultaneous control of oil production, transportation, and refining, vertical integration.

So long as the majors are vertically integrated, they will have the incentive and ability to pro-ration through participation agreements or some new means.

If the segments of the petroleum industry were under separate ownership, large scale purchasers of crude or of product would have the incentive to shop. Sellers would be trading at arms length in a market that could not be kept "orderly" by the actions of eight or ten major integrated forms.

In such a market of buyers and sellers, the prospects for sales by entrant national companies would be another factor tending to disrupt the OPEC cartel. These national companies now sell to independents making the majors' pro-rationing more difficult. With divestiture, every purchaser would be an independent refiner

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opening wider trade opportunities for national companies, eg: Iraq.

Divestiture, or the semi-divestiture envisioned in the authority for the government to purchase imports¹ would interrupt the majors' chain of communications and control, and permit price-cutting arrangements among suppliers and purchasers as the Iraqi appear to already be doing. No holders of a participation agreement would have the assured downstream market enabling them to promise the Saudis that their liftings would never fall below the minimum quantity required to finance Saudi development plans.

Unlike short-term efforts such as participation agreements, divestiture legislation goes to the heart of the problem - industry structure - and does not rely solely on administrative regulation.

Divested segments would not be dependent on government to arrange secret deals cutting oil prices. Nor would they rely on government policy in reselling imports. They would not be bound by erratic FEA pricing policy.

As with divestiture, "chaotic" trading--that is, trading at arms-length--could be furthered by requiring TAPS oil to be sold at the dock in Alaska. The resulting "disruption" could be made general to OPEC's sever detriment. Forbidding marketing of Alaskan oil by exchanges would mitigate vertical integration.

Horizontal Competition

Development of coal resources in the eastern and the western United States as well as uranium resources could reduce oil imports expansion and could induce greater competition in utility and industrial fuel markets.

1. The Energy Policy and Conservation Act, §456, 89Stat. 952-53, 15 USCA 760(b)

The development of domestic coal reserves would be furthered if the conditions for mine safety and surface reclamation were matters of greater public confidence. So long as a substantial portion of the public believes, with a basis in fact, that mining will not be controlled so as to protect the environment and the miner, delays will be incurred in obtaining permission to mine, and there will be problems in attracting technically skilled productive personnel to the industry. As long as the government's policy on environmental protection and mine safety are wishy-washy, industry will, often times, procrastinate in safety and pollution control efforts. Likewise, in air pollution control a determined effort to mandate flue-gas cleaning and, lesserly, better coal preparation is needed if coal use is to expand.

Coal reserves must be developed and not speculatively sat upon if coal is to compete. Petroleum companies have obtained but not mined extensive coal reserves as is also the case with geothermal energy. These reserves are on private as well as publically leased land; they should be diverted into the hands of companies who must mine to make money and can not use cash flows derived elsewhere to support speculative withholding or efforts to raise coal prices toward those for oil. Management intent upon mining may be expected to solve production problems faster than otherwise will occur.

Separate coal management would not be concerned about reducing oil markets or prices.

The uranium industry is one of concentrated ownership. Serious allegations have been made about an international uranium cartel, Westinghouse has failed to provide substantial quantities of fuel, and the assumptions about reprocessing and enrichment raised by utilities planning nuclear units are in question.

The lack of reprocessing capacity and Westinghouse non-delivery puts great pressure on uranium markets. Uranium spot prices have soared and lower cost resources are often times located in areas allegedly controlled by a cartel.

Rising prices and supply uncertainties have encouraged utilities, already hardpressed for capital and management time, to seek to enter the coal and uranium markets.

The burden on these utilities of running coal or uranium projects is superimposed on rising costs for nuclear and coal-fired capacity. It denotes problems in coal and uranium supply. A competitive industry supplying utility needs is required; to this end, ownership of coal, oil and uranium should be separated. Horizontal divestiture would reduce speculation and, in uranium, could introduce ownership by firms not heavily engaged in petroleum enterprises in the countries participating in the Uranium Institute "efforts for orderly markets".

Divestiture Would Encompass Foreign Activity

Divestiture efforts proposed in Congress encompass both domestic and foreign operations. In the past, antitrust law

has on a number of occasions dealt with overseas operations. From an initial hands-off attitude, the courts have in present times become willing to direct the overseas activities of American and other firms affecting U.S. foreign or internal commerce.

While courts have declined to require overseas subsidiaries to violate the requirements of the country they operate in, a legislative requirement for divestiture (or emergency petroleum regulation) would provide grounds for mandating dissolution or spin-offs of foreign subsidiaries and affiliates, or alterations in domestic activity to remove anti-competitive effects. Choice-of-law rules can be legislated; in the event that foreign requirements might work a loss of assets, this loss might be avoided by use of new managements as trustees for old owners.

Should push come to shove, the interests of this country regarding its national security and economy are paramount to the interests of petroleum companies' foreign subsidiaries.¹

Information

Public policy regarding petroleum can not be properly formed in vacuo. Since I believe in competition, I believe that the government should seek to further informed markets and to compete with the Petroleum Intelligence Weekly. So, I suggest that the government require the submission of participation (eg: concession, off-take, operating) agreements among energy

1. A further discussion of antitrust law in foreign commerce is appended.

companies and foreign states, major joint venture and unitization agreements. To further antitrust policy and other economic regulation, and improve capital allocation practices, the financial results of major firms should be reported by separate functions (eg: crude lines, refining, product transport) and geographic locations on a basis that is consistent among firms. Current financial reporting practices vary widely among oil companies. Public regulation, or monitoring, requires more uniform accounting.

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2. Section 503 of the 1975 Energy Policy and Conservation Act, 42 USCA, 638 provides:

(a) For purposes of developing a reliable energy data base related to the production of crude oil and natural gas, the Securities and Exchange Commission shall take such steps as may be necessary to assure the development and observance of accounting practices to be followed in the preparation of accounts by persons engaged, in whole or in part, in the production of crude oil or natural gas in the months after the date of enactment of this Act and shall take effect with respect to the fiscal year of each such person which begins 3 months after the date on which such practices are prescribed or made effective under authority of subsection (b)(2).

(b) In carrying out its responsibilities under subsection (a), the Securities and Exchange Commission shall -

(1) consult with the Federal Energy Administration, the General Accounting Office, and the Federal Power Commission with respect to accounting practices to be developed under subsection (a), and,

(2) have authority to prescribe rules applicable to persons engaged in the production of crude oil or natural gas, or make effective by recognition or by other appropriate means indicating a determination to rely on, accounting practices developed by the Financial Accounting Standards Board, if the Securities and Exchange Commission is assured that such practice will be observed by persons (continued on page 27)

engaged in the production of crude oil or natural gas to the same extent as would result if the Securities and Exchange Commission had prescribed such practices by rule. The Securities and Exchange Commission shall afford interested persons an opportunity to submit written comment with respect to whether it should exercise its discretion to recognize or otherwise rely on such accounting practice in lieu of prescribing such practices by rule and may extend the 24-month period referred to in subsection (a) as it determines may be necessary to allow for a meaningful comment period with respect to such determination.

(c) The Securities and Exchange Commission shall assure that accounting practices developed pursuant to this section to the greatest extent practicable, permit the compilation, treating domestic and foreign operations as separate categories, of an energy data base consisting of:

(1) The separate calculation of capital, revenue, and operating cost information pertaining to-

- (A) prospecting,
- (B) acquisition,
- (C) exploration,
- (D) development, and
- (E) production,

including geological and geophysical costs, carrying costs, unsuccessful exploratory drilling costs, intangible drilling and development costs on productive wells, the cost of unsuccessful development wells, and the cost of acquiring oil and gas reserves by means other than development. Any such calculation shall take into account disposition of capitalized costs, contractual arrangements involving special conveyance of rights and joint operations, differences between book and tax income, and prices used in the transfer of products or other assets from one person to any other person, including a person controlled by controlling or under common control with such person.

(2) The full presentation of the financial information of persons engaged in the production of crude oil or natural gas, including-

- (A) disclosure of reserves and operating activities, both domestic and foreign, to facilitate evaluation of financial effort and result; and
- (B) classification of financial information by function to facilitate correlation with reserve and operating statistics, both domestic and foreign.

(3) Such other information, projections, and relationships of collected data as shall be necessary to facilitate the compilation of such data base.

Part V of the Hearings of the Special Subcommittee on Integrated Oil Operations, Sen. Interior Comm. on Market Performance and Competition in the Petroleum Industry reviews accounting problems in petroleum. Serial No. 93-24 (92-59) (93rd Cong., 2d Sess., 1974).

PROPRIETARY ACTIVITY

Federal research programs might in a decade or two have significant effects on energy supply markets. The operations of federal power marketing agencies - the Bureau of Reclamation, the Southeastern and the Southwestern Power Administration - significantly affect the efficiency of utility power pool operations and the opportunities for small power systems to develop smaller new forms of generation, such as geothermal energy.

The General Accounting Office has issued several reports discussing how the Bureau of Reclamation has failed to efficiently integrate its hydro-projects into western power supply, and how the Bureau has essentially become an adjunct of the pool of private utilities in California. Effects of these actions are to pass up opportunities to replace the No. 2 oil used for peaking and on small systems for all (diesel) generation, and to waste an opportunity to open up Western power grids so that smaller systems could acquire bulk power from the lowest cost generation rather than being forced to purchase from their adjacent, often oil burning large utility.

Active monitoring by antitrust enforcement agencies of the actions of federal power marketing and federal energy research programs is called for to see that programs are directed toward innovation and efficient energy generation and use, and not conducted just to buttress existing industry structures.

Those managing public lands are in an excellent position to encourage rapid price-competitive development of resources, and competitive practices in regard to the development of power transmission and generation facilities. People should be in those positions who intend to do just that.

Conclusion

Domestic inflation and unemployment can only be controlled by an Administration that brings the large international oil companies under control. Unless they are curbed, the flow of dollars and arms to OPEC countries will continue unabated, and American foreign policy will follow these transfers.

In the short run, use of authority to purchase imports, and to recapture participation-agreement-derived excess profits could slow the majors and OPEC down. Refusing to allow the exchange and shipment of Alaskan oil to Japan, while requiring this oil to be sold rather than exchanges, would similarly help.

In the longer run, OPEC and high energy prices can only be curbed by breaking up big oil. Only in this way will control of energy resources be diversified and will the structurally derived incentive to drive up the price of crude be removed.

Divestiture legislation (vertical) was voted out of the Senate Judiciary Committee in the last session of Congress. A divestiture amendment to another bill had earlier received 45 Senate votes.

President-elect Carter, while not supporting vertical divestiture, has clearly indicated an interest in horizontal divestiture.

Recent amendments to the Internal Revenue Code reduce the incentive previously given to petroleum companies to produce oil overseas instead of in this country.¹ These amendments reflect, I believe, a growing national understanding about the need to limit the large international petroleum companies. That is the goal I espouse.

Sheldon Bierman

Publ: Law 94-455, Section 1031-37 90 STAT 1520 - 1620 (1976)

An excess profits tax, or recapture by regulation, would be difficult to administer because of the lack of uniform petroleum accounting standards and because of the lack of competent personnel in government agencies.

SUBJECT: U.S. Antitrust Law and Foreign Commerce

United States antitrust law is concerned with the characteristics of a restraint of trade and with the competitive impact of acquisitions and mergers.

Subject Matter Jurisdiction

Jurisdiction is asserted over the subject matter where the domestic or foreign commerce of the United States is substantially affected. 1/

Actions attacked may occur outside of the United States, 2/ may involve foreign as well as domestic firms or associations, 3/ and may be entered into here 4/ or abroad. 5/

Most cases have involved restrictions on exports, 6/ and their marketing. 7/ Others have dealt with restraints on transportation. 8/ The courts have been more likely to find an effect on U.S. domestic or foreign commerce if a U.S. firm is involved. 9/

1/ The farthest statement of the point is found in the Alcoa case.

"It is settled law that any state may impose liabilities, even upon persons not within its allegiance, for conduct outside its borders that has consequences within its borders which the state apprehends. United States v. Aluminum Co. of America, 148 F.2d 416 (CA2, 1945).

2/ Continental Ore Co. v. Union Carbide and Carbon Corp., 370 U.S. 69, 1962 Trade Cases 70362 (1962).

3/ United States v. Watchmakers of Switzerland Information Center, 63 Trade Cases 70600, (D.C.N.Y. (1962)); OCCF, FTC Docket 6106 (exclusive supply contract between domestic scrap dealers and office for European steel mills).

4/ Timken Roller Bearing Co. v. United States, 341 U.S. 593, 1950-51 Trade Cases 62837 (1951).

5/ Hazeltine Research, Inc. v. Zenith Corp., 239 F. Supp. 51 (N.D., Ill., 1965), 65 Trade Cases 713 55; rev'd on other grounds, 388 F.2d 25 (CA 7, 1967), 1967 Trade Cases 72310, rev'd 395 U.S. 100, 1969 Trade Cases 72800 (1969); vacated 418 F.2d 212, 1969 Trade Cases 72849 (CA 7, 1969).

6/ Hazeltine, supra.

7/ United States v. Minnesota Mining and Manufacturing Co., 92 F. Supp. 942, 1950-51 Trade Cases 62687 (D. Mass., 1950); United States v. Gulf Oil Co., 1960 Trade Case, 69851 (D.C.N.Y., 1950); and, United States v. Anthracite Export Ass'n., 1970 Trade Cases 73348 (D.C. P.A., 1970).

8/ United States v. Pacific and Arctic Railway and Navigation Co., 228 U.S. 87 (1913); and, Pacific Seafarers, Inc. v. Pacific Far East Line, Inc., 404 F.2d 804 (D.C. Cir., 1968), cert. denied, 393 U.S. 1093 (1969).

9/ Fugate, Foreign Commerce and the Antitrust Laws (rev'd ed. 1973). A foreign firm only needs a general intent to act so as to effect U.S. commerce, if effects occur.

A foreign company may be a party to a restraint of trade by a United States company by virtue of its contractual relationships with other U.S. firms where the foreign company knew or should have known that its activities were a substantial contribution to an illegal plan in the U.S. markets and that its activities had a direct and substantial effect upon trade. 10/

Personal Jurisdiction

For a court to have jurisdiction over a person, that person must be amenable to service and service must in fact be made.

A foreign firm is amenable to service if it is carrying on business of any substantial character in a judicial district into which the U.S. is divided up. 11/

If found in this country, a defendant may be served at its home office abroad. 12/

Special Defenses

In foreign trade matters, special problems arise in regard to participation by governments in business ventures and in regard to conflicting mandates of foreign law.

A foreign sovereign is generally immune from suit, without its consent, in U.S. courts. 13/ Generally, where a foreign government participates in a business venture on a commercial basis the defense of sovereign immunity does not apply. 14/ An exception to this general rule may be found where a foreign government participates in a commercial venture for national security purposes. 15/

10/ United States v. General Electric Co., 82 F. Supp. 753 (D.C.N.J., 1949) 1948-49 Trade Cases 62353.

11/ United States v. Scophony Corp., 333 U.S. 795 (1948). Venue lies in any district, 28 U.S.C. 1391 (d); Brunette Machine Works, Ltd. v. Kockum Industries, Inc., 406 U.S. 706 (1972).

12/ International Ford Tractor Sales Co. v. Massey-Ferguson, Ltd., 210 F. Supp. 930, 939 (D.Utah, 1962), aff'd per curiam, 325 F.2d 713 (CA10, 1963); Fed. Rules of Civil Procedure 4(i).

13/ Banco Nacional de Cuba v. Sabbatino, 376 U.S. 398 (1964) (Act of State doctrine).

14/ United States v. Deutsches Kalisyndikat Gesellschaft, 31 F.2d 199 (S.D.N.Y., 1929); In re Grand Jury Investigation of the Shipping Industry, 186 F. Supp. 298 (D.D.C., 1960).

15/ In re Grand Jury Investigation of World Arrangements with Relation to Production, Transp. Ref., and Distrib. of Petroleum, 13 F.R.D. 280 (D.D.C., 1952) (subpoena quashed when Anglo-Iranian Oil Company asserted it had been ordered by British Government not to produce documents not located in U.S. and not related to business transacted in U.S.). When the successor British Petroleum Company acquired control over Standard Oil Co. (Ohio) the U.S. government resisted the mergers and a settlement requiring partial divestiture was made. United States v. Standard Oil Co., 1970 Trade Cases 72988 (N.D., Ohio, 1970).

In the event that a complained of act involves the action and motives of a foreign government acting in its sovereign capacity in its country, U.S. courts will not hear the case. 16/

This portions of complaints dealing with government actions regarding international boundaries and petroleum concessions have been dismissed. 17/ The related actions of private firms giving rise to contractual disputes or to other restraints of trade remain actionable.

Compulsion by a foreign government of a locally incorporated subsidiary constitutes a defense. 18/ Likewise, a decree will only be enforced as regards foreign matters to the extent permitted in loci forii. 19/

However, agreements made by a U.S. firm with foreign firms to restrict imports to the United States are not protected by the authorization or acquiescence of a foreign government. 20/

Similarly, the delegation of discretionary power by a foreign government is not a defense. 21/

Even in the event of actions taken pursuant to foreign government direction, actions taken in the United States commerce are not immune. 22/

16/ Occidental Petroleum Corp. v. Buttes Gas and Oil Co., 1971 Trade Cases 73525, 331 F. Supp. 92 (C.D., Ca. 1971), aff'd per curiam, 461 F.2d 1261 (CA, 9), cert. denied, 409 U.S. 950 (1972); and, Hunt v. Mobil Oil Corp., 1975-2 Trade Cases 60591 (S.D.N.Y., 1975).

17/ Hunt, supra. (The parts of the complaint pertaining to a sharing and sales agreement among Libyan producer-concessioners was not dismissed.)

18/ Interamerican Refining Corp. v. Texaco Maracaibo, Inc., 307 F. Supp. 1291, (D.Del, 1970).

19/ United States

v. Imperial Chemical Industries, Ltd., 105 F. Supp. 215 (D.C.N.Y., 1952), 1952 Trade Cases 67282; United States v. General Electric, 115 F. Supp. 835 (D.C.N.Y., 1953) 1953 Trade Cases 67576; and United States v. Watchmakers of Switzerland Information Center, Inc., 1965 Trade Cases 71352 (S.D.N.Y., 1965) and 1965 T.C. 80491.

20/ United States v. R. P. Oldham Co., 152 F. Supp. 818 (N.D., Ca., 1957) 1957 Trade Cases 68790 (conspiracy in Japan among five U.S. importers of wire nails, an American subsidiary of a Japanese nail exporter, and a number of Japanese firms which was lawful in Japan).

21/ Continental Ore Co. v. Union Carbide and Carbon Corp., 370 U.S. 690 (1962).

22/ Sabre Shipping Corp. v. American President Lines, Ltd., 285 F. Supp. 949 (S.D.N.Y., 1968), 1968 Trade Cases 72493.

Joint Ventures and Mergers

Under the U.S. antitrust law mergers tending to substantially lessen competition are prohibited. These prohibitions apply to acquisitions involving foreign firms as acquiring or acquired parties. 23/ They also apply in the case of mergers of U.S. subsidiaries of foreign firms. 24/

Joint ventures among competitors or potential competitors have been a subject of concern under American antitrust law. 25/

Some joint enterprises have been attached as market division schemes. 26/

Allegations have been made that U.S. antitrust law, particularly as it pertains to joint ventures, weakens the ability of U.S. firms to trade abroad. The Justice Department which together with the Federal Trade Commission, is charged with enforcing basic antitrust laws has denied these allegations. 27/

23/ United States v. Standard Oil (Ohio), 1970 Trade Cases 72988 (N.D. Ohio, 1969) (consent decree on British Petroleum acquisition of control of Sohio); United States v. Asiatic Petroleum Corp.; 1971 Trade Cases 73689 (D. Mass., 1971) (Royal Dutch Shell Co. subsidiaries acquisition of oil distributor: consent decree); United States v. Schlitz Brewing Co., 253 F. Supp. 129, aff'd, 385 U.S. 375 (1966), (acquisition of Canadian brewer); and In re Litton Indus, Inc., FTC Docket 8778 (April 10, 1968).

24/ U.S. v. CIBA Corp., 1970 Trade Cases 73269 (S.D.N.Y., 1970).

25/ United States v. Penn-Ohio Chemical Co., 378 U.S. 158, 12 L. Ed 2d 775 (1964); and United States v. Monsanto Co., 1967 Trade Cases 72001 (D. Pa., 1967), (divestiture ordered in joint venture of Monsanto and Bayer).

26/ Swiss Watchmakers, supra; Timken, supra; Minnesota Mining and Manufacturing, supra; and, United States v. Imperial Chemical Industries, Ltd., supra.

27/See Department of Justice letter of April 26, 1974, in Senate Judiciary Hearings on International Antitrust Law.

Conclusion

The increasing importance of international trade, and the substantial involvement of governments in such commerce may be expected to gradually lead to a balancing-of-interest test to determine the appropriate choice of laws. At present, sovereign actions a state within its borders are ~~attractable~~ in U.S. courts 29/ while actions of private firms are if the actions are directed to and have a substantial U.S. impact.30/

In this regard, American courts will assert jurisdiction over a firm if as a practical matter the firm carries on a business - directly, through an agent or through a closely directed subsidiary - in the United States. The U.S. government has taken an apparently lenient attitude toward overseas joint ventures. However, joint ventures allocating trade and territories may be prosecuted 31/

The International Trade Commission is authorized to issue cease and desist orders against unfair methods of competition in the importation of articles which sustain or monopolize trade (19 USC 1337 (a)).

Sheldon L. Bierman
24 November 1976

29/ Save for expropriations of property.

30/ The problem of conflicting foreign law is somewhat paralleled by problems arising when state laws conflict with the pro-competitive thrust of federal antitrust law. When State laws restrain trade, the courts have held that they are not necessarily preempted by federal antitrust law. The lead case in this regard is Parker v. Brown, 317 U. 5341, 87 L. Ed 315. The ability to raise a state law defense to a complaint grounded in the federal antitrust law has been closely limited in a recent case. Cantor v. Detroit Edison Company. ___ US ___. 49 L.Ed 2d 1143 (1976)

31/ A collection of citations to recent complaints filed by the Justice Department involving technology licensing among foreign firms is found in Wallace, Overlooked Opportunities - Making the Most Out of the United States Antitrust Limitations on International Licensery Practices, 10 International Lawyer 277 (1976). Justice has attacked license schemes going back as far as 1923. United States v. Westinghouse Electric Corporation. Civ. No. C 70-852 - SAN (N.D. Ca., complaint filed 22 April 1970) (Mitsubishi licenses).

TECHNICAL PURCHASE AUTHORITY

15 USC 751
note.

SEC. 456. The Emergency Petroleum Allocation Act of 1973, as amended by this Act, is further amended by adding at the end thereof the following new section:

"TECHNICAL PURCHASE AUTHORITY

15 USC 760b.

"SEC. 13. (a) The President may, by amendment to the regulation under section 1(a) of this Act, provide for and implement a procedure pursuant to which the United States may exercise the exclusive right to import and purchase all or any part of the crude oil, residual fuel

oil, and refined petroleum products of foreign origin for resale in the United States.

"(b) The authorities granted under this section shall not be used for the purpose, or with the effect, of providing a subsidy or preference to any importer, purchaser, or user.

"(c) In exercising any authorities granted under this section, the President shall endeavor to buy and sell without profit or loss, except that the President may, in individual cases, sell, on a competitive bid basis, crude oil, residual fuel oil, or any refined petroleum product at a price above or below the cost of such oil or product if, in the judgment of the President, such sales may result in progress toward a lower price for oil sold in international commerce.

"(d) Any amendment to the regulation proposed to be implemented under this section shall be submitted to Congress for review under section 551 of the Energy Policy and Conservation Act, together with a detailed explanation of the procedure to be employed and the need therefor and shall be supported by findings by the President that the exercise of such authority is likely to reduce prices for imported oils and products. Such amendment shall not take effect if disapproved by either House of the Congress in accordance with the procedures specified in section 551 of such Act and any authority to purchase shall be subject to appropriations Acts.

Regulation
amendment,
submittal to
Congress.
Post, p. 965.

"(e) The President shall submit, within 90 days after the date of enactment of this section, a report which evaluates the feasibility of reducing the price of crude oil, residual fuel oil, or refined petroleum products of foreign origin for resale in the United States by providing incentives for domestic producers who also import such oils or products into the United States, to work for the reduction of the price of such oils or products. The report shall specifically discuss whether increasing aggregate oil prices by an amount related to any decrease in aggregate prices for such imported oils and products would serve as an incentive for domestic producers to reduce the price of such imported oils and products."

Price re-
duction,
feasibility
report.

J. D. MOODY, PETROLEUM CONSULTANT

950 THIRD AVENUE-18TH FLOOR

NEW YORK, N. Y. 10022

CABLE: GEOPETCON NEWYORK
TELEX: 666323

OFFICE: 212 935-0774
HOME: 212 421-5439

August 17, 1976

Dr. Emanuel Rosenblat
Chairman, Etosha Petroleum Co.
175 Lorraine Avenue
Mt. Vernon, New York 10553

Dear Dr. Rosenblat:

THE ETOSHA BASIN

Oil is found in traps in sedimentary rocks, but not all traps are oil-bearing.

Traps are special configurations of porosity and permeability distributions in sedimentary rocks resulting from structure, stratigraphy, or a combination of the two.

The best places to look for oil-bearing traps are in large sedimentary basins, the sedimentary fill of which exhibits substantial vertical and lateral facies variability.

Oil-bearing traps occur in sedimentary rocks of various ages ranging from Pleistocene (very young) to pre-Cambrian (very old). The greatest incidence of oil-bearing traps is in strata of Jurassic and Cretaceous age.

The essential components of traps are the reservoir, ordinarily sandstone or carbonate (limestone or dolomite); the cover or seal, commonly shale, impermeable limestone or sandstone, or evaporite (salt, gypsum, or anhydrite), and closure.

The Etosha Basin of Southwest Africa is a very large sedimentary basin (over 66,000 square miles) with a very thick sedimentary fill (over 25,000 feet).

The sedimentary fill of the Etosha Basin exhibits substantial vertical variability (dolomites, limestones, shales, sandstones) as well as substantial lateral variability (indicated reefing, pinchouts, thickness variation, etc). The age of the sedimentary fill is not well-documented, but is thought to range from pre-Cambrian to Carboniferous. Most of the stratigraphic column present is probably late pre-Cambrian, Cambrian, and Ordovician.

The Etosha Basin contains a significant number of very large traps, well mapped by seismic surveys and supported to some extent by gravity and aeromagnetics.

Dr. Emanuel Rosenblat

August 17, 1976

There are foetid dolomites, geochemical anomalies, and hydrocarbon inclusions in crystals to provide some limited evidence that there has been some generation of hydrocarbons, and therefore some potential source beds, in the basin.

The only way to determine whether or not the Etosha Basin contains important accumulations of hydrocarbons is by drilling. I am firmly of the opinion that several of the known large traps in the Etosha Basin should be drilled.

Because of the size of the traps, the reward if successful could be tremendous. Any, or conceivably most, of the 11 well-substantiated traps could easily contain over one billion barrels of oil.

Negative features related to exploration of the Etosha Basin include (a) scanty direct evidence of hydrocarbons, (b) the fact that the bulk of the sedimentary fill is old (late pre-Cambrian and/or early Paleozoic) and not optimum, and (c) the occurrence of major thermal events (metamorphism) of early Paleozoic age on the south side of the Otavi Mountains. (However I know of no unequivocal evidence of metamorphism within the sedimentary fill of the Etosha Basin.) Positive features are related above.

In summary, I believe that there is a modest chance of finding oil in the Etosha Basin and that exploratory drilling should be done. In my judgment the potential reward in case of success more than outweighs the high exploratory risk of the venture.

Yours very truly,


J. D. Moody

JDM:jf/ad
attachment

PROFESSIONAL RECORD
of
J. D. MOODY

Business: 950 Third Avenue-18th Floor
New York, New York 10022
(212) 935-0774

Home: 400 East 56th Street-Apt. 4G
New York, New York 10022
(212) 421-5439

EXPERIENCE

Jan. 1975-	President, Moody-Robertson Consultants, Inc.
Sept 1974-	Consultant on petroleum, geology, energy, and minerals, worldwide.
Nov. 1967-Sept. 1974	Senior Vice President, Mobil Oil Corporation, New York. Overall supervision and high-level staff advice of Mobil's exploration and producing activities worldwide.
Nov. 1963-Nov. 1967	Executive Vice President for Exploration & Producing, Mobil Oil Corporation, New York. Line responsibility for Mobil's exploration and producing activities in the U.S. and Canada.
July 1962-Nov. 1963	Manager of Exploration, Socony Mobil Oil Co., New York. Staff responsibility for Socony Mobil's worldwide exploration effort.
Apr. 1960-June 1962	Manager of Exploration, Plymouth Oil Co., Houston, Texas. Directly responsible for all of Plymouth Oil Company's exploratory activities throughout the world.
July 1959-Mar. 1960	Exploration Coordinator, Pittsburgh Office, Gulf Oil Corp. Provided coordination and top management advice for all of Gulf's exploratory activities throughout the world. Additional duties: Chairman-Exploration Research Committee Member -Exploration Council Member -Well Logging Committee Member -Geophysical Operations Committee
Jan. 1958-July 1959	Exploration Advisor, Pittsburgh Office, Gulf Oil Corp.
July 1957-Jan. 1958	District Manager, Midland District, Gulf Oil Corp. Directly responsible for (a) daily average production in excess of 100,000 barrels, (b) supervision of 50 rotary rigs, and (c) administration of annual budget in excess of \$100 million.
Aug. 1954-June 1957	Assistant Division Exploration Manager, Ft. Worth Division, Gulf Oil Corp.
Jan. 1954-July 1954	Division Staff Geologist, Ft. Worth Division, Gulf Oil Corp.

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Nov.	1951-Dec.	1953	Chief Geologist, Ft. Worth Division, Gulf Oil Corp.
July	1950-Nov.	1951	Staff Geologist, Ft. Worth Office, Gulf Oil Corp.
Mar.	1950-June	1950	Staff Geologist, Houston Office, Gulf Oil Corp.
Dec.	1949-Mar.	1950	Staff Geologist, New Orleans Office, Gulf Oil Corp.
Aug.	1949-Feb.	1949	Staff Geologist, Pittsburgh Office, Gulf Oil Corp.
July	1947-July	1949	Reservoir Geologist, Kuwait Oil Co., Kuwait
Nov.	1945-June	1946	Geologist, Shreveport Office, Gulf Oil Corp.
June	1940-Feb.	1941	Geologist, Jackson Office, Gulf Oil Corp.
July	1938-July	1939	Surveyor, Shreveport Office, Gulf Oil Corp.

Have supervised or personally conducted exploratory projects (including reconnaissance) in:

<u>Africa</u>	<u>Indonesia</u>	<u>United States</u>
Angola (Cabinda)	Sumatra	Alabama
Ethiopia		Alaska
Ghana	<u>Middle East</u>	Arkansas
Libya	Abu Dhabi	California
Nigeria	Iran	Colorado
Somalia	Iraq	Florida
	Kuwait	Gulf of Mexico
<u>Australia</u>	Oman	Kansas
New South Wales	Qatar	Louisiana
North Territory	Saudi Arabia	Michigan
Queensland		Mississippi
South Australia	<u>Latin America</u>	Nebraska
Victoria		New Mexico
	<u>Caribbean</u>	Oklahoma
<u>Canada</u>	Jamaica	Pennsylvania
Alberta		Texas
Arctic Islands	<u>Central America</u>	Utah
British Columbia	British Honduras	West Virginia
Maritime Provinces	Costa Rica	Wyoming
Northwest Territories	Guatemala	
Saskatchewan	Honduras	
	Mexico	
<u>Europe</u>	Nicaragua	
Austria	Panama	
Denmark		
France	<u>South America</u>	
Germany	Bolivia	
Greece	Brazil	
Italy	Colombia	
Sicily	Peru	
North Sea	Venezuela	
Spain		
Turkey		

Have been personally involved in producing operations in:

Abu Dhabi	Indonesia	Nigeria	United States
Canada	Iran	North Sea	Venezuela
Colombia	Kuwait	Qatar	
Germany	Libya	Saudi Arabia	

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PUBLICATIONS

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2. Wrench-Fault Tectonics, Bull. GSA, Vol. 67, Page 1207, 1956 (with M. J. Hill)
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7. Comments on "The Origin of Folding in the Earth's Crust" by V. V. Belousov, Journal of Geophysical Research, July 1961, Bull. Houston Geol. Soc., Jan. 1962
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9. Petroleum Developments in Africa in 1961, Bull. AAPG, Vol. 46, No. 7, 1962
10. Petroleum Developments in Africa in 1962, Bull. AAPG, Vol. 47, No. 7, 1963 (with M. C. Parsons)
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12. The Moody & Hill System of Wrench-Fault Tectonics: A Reply, Bull. AAPG, Vol. 48, No. 1, 1964 (with M. J. Hill)
13. Petroleum Developments in Africa in 1963, Bull. AAPG, Vol. 48, No. 10, October 1964
14. Geology of Central America, 1964, In Press (Columbia University)
15. Discussion of "Ozark Pre-Cambrian-Paleozoic Relations" by H. E. Wheeler, Bull. AAPG, Vol. 50, No. 5, 1966
16. Crustal Shear Patterns and Orogenesis, 1966, Tectonophysics, Vol. 3, No. 6
17. On Interpretation of Asymmetric Synclines, 1968, with John Sales (In preparation)
18. Late Cenozoic History of Texas High Plains, 1968 (In preparation)
19. Tectonic Pattern of Northeast United States, 1968, with James Skehan (In preparation)

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PUBLICATIONS (continued)

20. Whence the Lewis Overthrust Sheet?, 1968 (In preparation)
21. Tectonic Pattern of Western North America, 1968 (In preparation)
22. Exploration Future of the Southwest, 1968 (Presented to Southwestern Section of AAPG, Wichita Falls, Texas)
23. Restraints on Exploration, 1967, The Oil and Gas Journal, Feb. 13, 1967
24. Giant Oil Fields of North America, 1968 (Presented to the Annual Convention of the AAPG, Oklahoma City, Oklahoma) April 22-25, 1968, with J. W. Mooney, J. Spivak
25. Exploration Future of the Northeastern U.S., (Presented to Illinois State Geological Survey, October 24-25, 1968)
26. The Role of Offshore Operations in the Long-Range Free World Supply/Demand Outlook, (Presented at AAPG - SEPM Joint Meeting - Dallas, Texas) April 1969
27. Origin of Pleistocene Glaciation - 1969 (In preparation)
28. Petroleum Demands of Future Decades, 1970 (Keynote address AAPG Convention, Calgary June 1970. AAPG Bull., Vol. 54, No. 12, Dec. 1970)
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30. The "T" Theory of Oil Accumulation - 1970 - Skytop Meeting (unpublished)
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32. Distribution and Geological Characteristics of Giant Oil Fields, 1972, (Presented at "Petroleum and Global Tectonics Conference", Princeton University, March 10-11, 1972)
33. Petroleum Exploration Aspects of Wrench Fault Tectonics, 1972, Bull. AAPG, Vol. 57, No. 3, March 1973
34. Shear Patterns of Europe and Northwest Africa (In preparation)
35. Late Cretaceous Nappes in Oman Mountains and Their Geologic Evolution: Discussion, 1974, AAPG Bulletin May 1974
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37. The Structural Setting of the Giant Oil and Gas Fields of the World (In press) Ninth World Petroleum Congress, Tokyo, May 1975, with D. A. Holmgren and H. H. Emmerich

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ORGANIZATIONS (last five years)

Alberta Society of Petroleum Geologists
American Association for the Advancement of Science
American Association of Petroleum Geologists
American Association of Petroleum Geologists/Eastern Section
American Geophysical Union
American Petroleum Institute
Corpus Christi Geological Society
Fort Worth Geological Society
Geological Association of Canada (Fellow)
Geological Society of America (Fellow)
Geological Society of London (Fellow)
Houston Geological Society
Independent Petroleum Association of America
Marine Corps Reserve Officers Association
Midland Geological Society
New Mexico Oil and Gas Association
Pittsburgh Geological Society
Texas Mid-Continent Oil and Gas Association

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PROFESSIONAL RECORD

HONORS

Matson Award, 1963, American Association of Petroleum Geologists

Distinguished Achievement Award, 1965, Colorado School of Mines

Secretary-Treasurer, 1966-67, American Association of Petroleum Geologists

Consultant to New Mexico Research Center on Geology of Mars

Departmental Advisory Council, Princeton University

Advisory Council, Colorado School of Mines Board of Trustees

Geology Foundation Advisory Council, University of Texas at Austin

Advisory Board, Department of Geological Sciences, University of Southern California

Honorary Membership, American Association of Petroleum Geologists 1972

Committee on Mineral Resources and the Environment, Division of Earth Sciences,
National Research Council-National Academy of Sciences 1972-76

Consultant to Office of Technology Assessment, U.S. Congress

Exxon Visiting Professor in Environmental Management and Control, Dartmouth College
1975-76

President Elect, 1975-76, American Association of Petroleum Geologists

President, 1976-77, American Association of Petroleum Geologists

J. D. MOODY
PROFESSIONAL RECORD

EDUCATION

High School: C. E. Byrd Memorial High School, Shreveport, Louisiana,

College: Colorado School of Mines, Golden, Colorado

Geological Engineer - 1940
Master of Geological Engineering - 1947
Petroleum Production Engineer - 1947

Honors - Tau Beta Pi, Sigma Gamma Epsilon

Social - Beta Theta Pi

MILITARY SERVICE

Active duty in United States Marine Corps Reserve in Pacific Theatre in World War II from February 1941 to January 1946. Highest command held was battalion of four antiaircraft batteries and searchlight battery. Many staff assignments. Presently Lt. Colonel, retired.

PERSONAL

Date of Birth: December 4, 1918 - Denver, Colorado, U.S.A.

Family: Married to Enid Evelyn Willie of Waco, Texas-February 10, 1945

Three children

Date of Birth

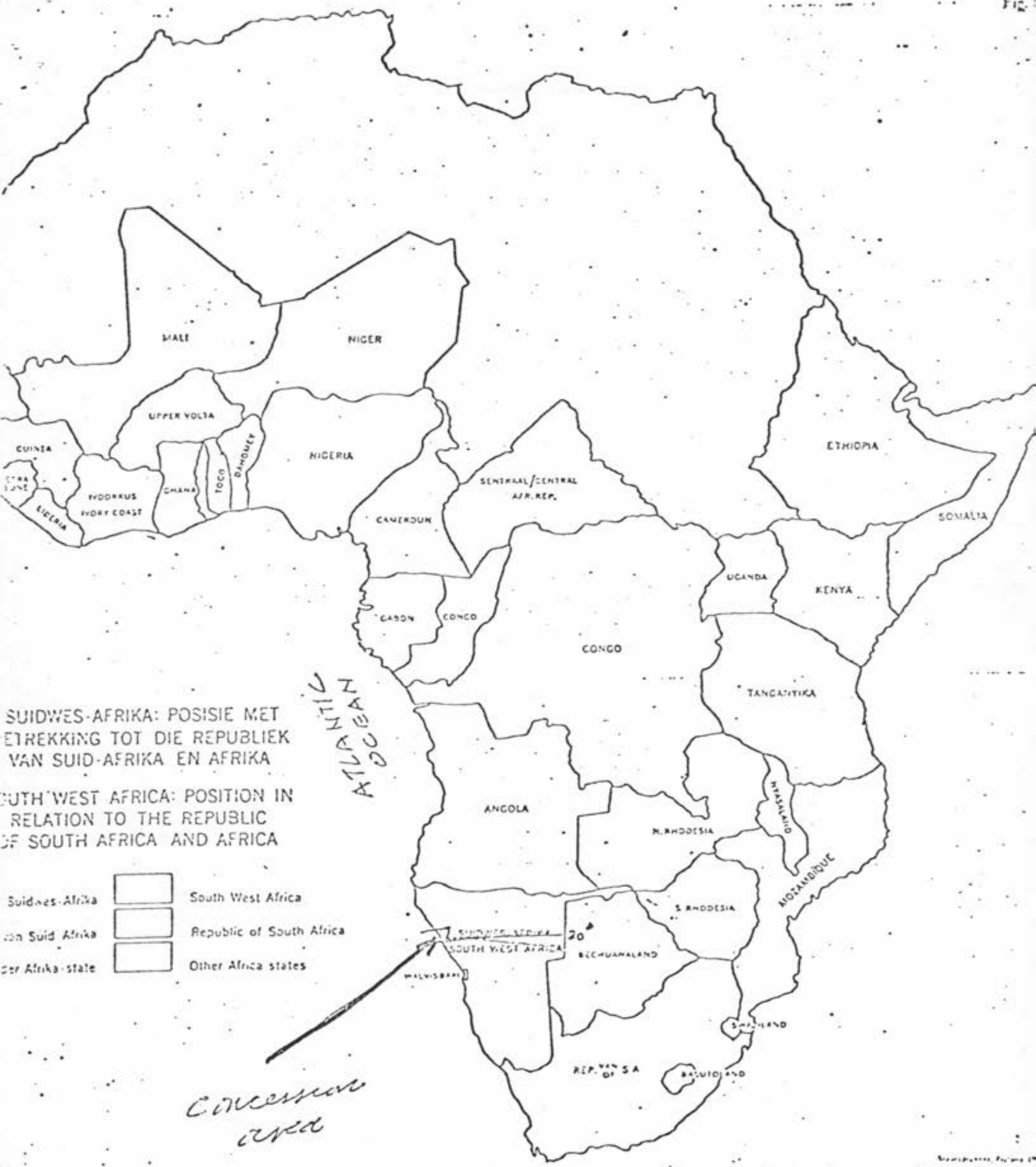
John D. Moody, Jr.	5/21/49
Melissa Lynn Moody	8/21/51
Jennifer Alice Moody	10/15/52

Religion: Protestant

Deacon-Marble Collegiate Church, New York, New York 1967-1973

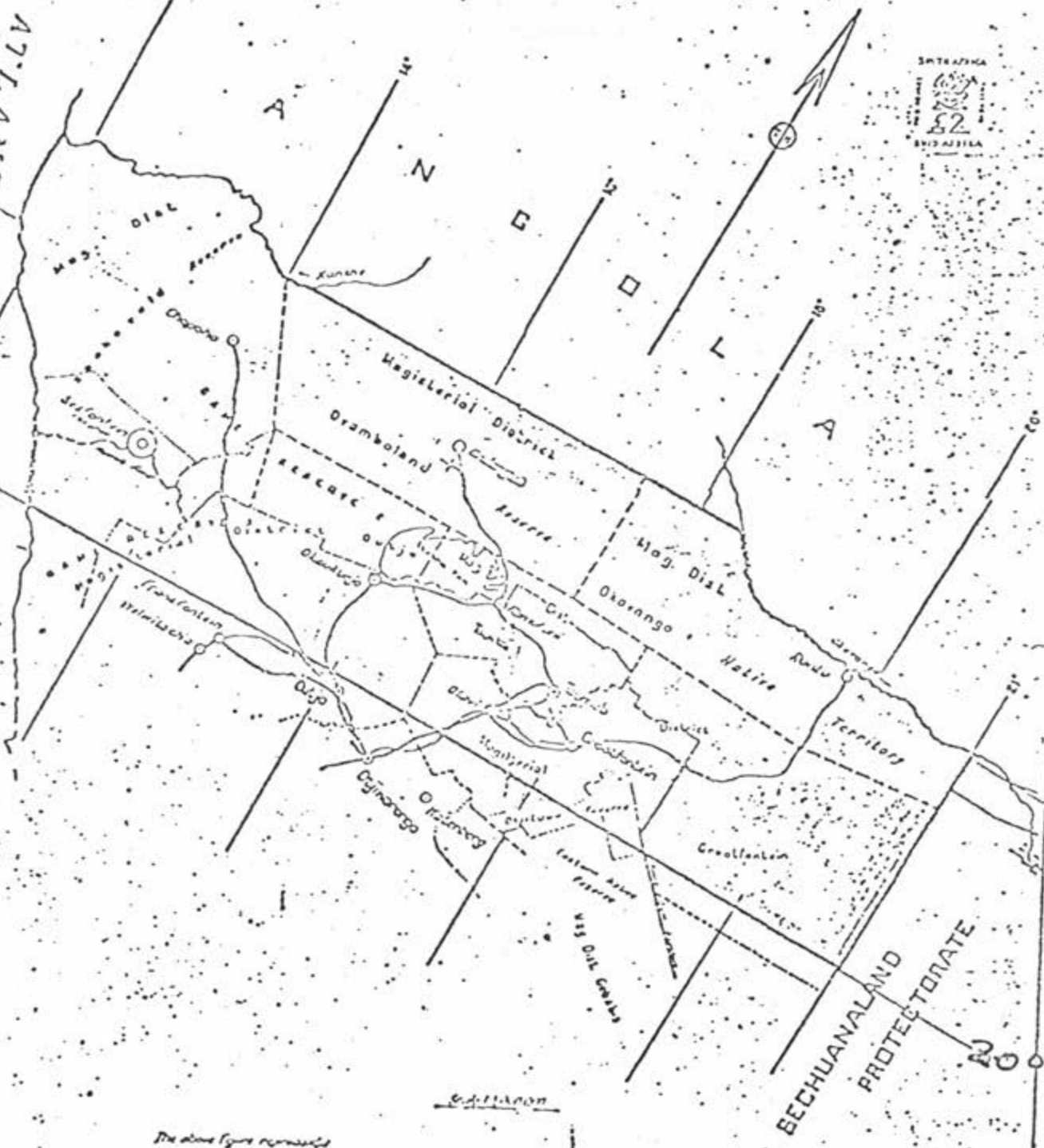
Social

Organizations: Manhasset Bay Yacht Club
Petroleum Club of Houston
Sky Club, New York City
25-Year Club of the Petroleum Industry





ATLANTIC OCEAN



PROSPECTING GRANT No. 114/50

as described in the schedule attached to Grant No. 114/50
situated in the Bechuanaland Protectorate - B. B. L.

The system is intended to be used as a guide to the location of the grant lands in the Bechuanaland Protectorate.	GRANT LANDS No. 114/50
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EXHIBIT I

June 25, 1976

Mr. Albert D. Chernin
NJCRAC
55 West 42nd Street
New York, N.Y. 10036

Dear Al:

In response to your letter of June 22, you ought to know that I asked for authorization for a Presidents' Conference Task Force on Energy at one of our meetings. I don't recall just which session it was, but there was full representation at the meeting and not one single agency involved in the NJCRAC voiced objection nor did anyone indicate the existence of an NJCRAC Task Force. If the leadership can't transfer information to one another, what do you want from poor little me?

With warmest regards, I am

Sincerely,

Alexander M. Schindler

cc: Mr. Yehuda Hellman

National Jewish Community Relations Advisory Council

55 West 42nd Street, New York, N. Y. 10036

(212) 564-3450

June 22, 1976

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Albert D. Chernin

EXEC. VICE CHRMN. EMERITUS

Isaiah M. Minkoff

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(in addition to the officers)

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Mervin H. Riseman

AMERICAN JEWISH CONGRESS

Stanley H. Lowell

Shad Polier

B'NAI B'RITH

ANTI-DEFAMATION LEAGUE

David M. Blumberg

Seymour Graubard

JEWISH LABOR COMMITTEE

James Lipsig

Jacob Sheinkman

JEWISH WAR VETERANS OF U.S.A.

Ralph Plofsky

Judge Paul Ribner

NATIONAL COUNCIL OF

JEWISH WOMEN

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Eleanor Marvin

UNION OF AMERICAN

HEBREW CONGREGATIONS

Matthew Ross

Rabbi Alexander M. Schindler

UNION OF ORTHODOX JEWISH

CONGREGATIONS OF AMERICA

Samuel L. Brennglass

Harold M. Jacobs

UNITED SYNAGOGUE OF AMERICA

Arthur J. Levine

Henry N. Rapaport

Community Representatives

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Carol Dragul, Cincinnati

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Rabbi Harvey Goldman, Rochester

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Robert Reinhard, Richmond

Isadore D. Rosenfeld, South Bend

Jack Sarver, Tucson

Rita R. Semel, San Francisco

Robert Silverman, Cleveland

Norman Stack, St. Louis

Morris Stein, Portland, Ore.

Beryl B. Weinstein, Connecticut

Bernard S. White, Washington

Maynard Wishner, Chicago

Leonard J. Zanzville, San Diego

EX OFFICIO

Commission/Committee Officers

(not elsewhere listed)

Louis J. Cohen, Metropolitan N.J.

Julian Freeman, Indianapolis

Milton I. Goldstein, St. Louis

Dr. Lou H. Silberman, Nashville

Representing Association of Jewish

Community Relations Workers

Meyer Fine

Rabbi Alexander M. Schindler

Union of American Hebrew Congregations

838 Fifth Avenue

New York, New York 10021

Dear Alex:

I note in Joe Glaser's draft on "The Deliberative Processes of the Presidents Conference" that a Task Force already has been created on energy.

Since the NJCRAC Israel Task Force has been coordinating the efforts of the community relations field in combatting Arab economic warfare, which, of course, deals with energy, I was somewhat puzzled that we hadn't been informed about this particular Task Force.

In any case, so that the Task Force will not have to engage in needless duplication of discussions already held within the NJCRAC and upon which agreement has been reached, I enclose for your information a position paper adopted by the NJCRAC on November 7, 1975 in regard to Arab economic warfare. I also should note that it is felt that, as a matter of strategy, this item should be dealt with in the context of domestic issues rather than in the context of the Arab-Israel conflict.

Warmest regards.

Cordially,



Albert D. Chernin

Executive Vice Chairman

ADC:ZC

Enc.

cooperation in the common cause of Jewish community relations

**COMBATting THE ARAB ECONOMIC WARFARE
AGAINST ISRAEL AND JEWS**

**A POSITION PAPER
AND
GUIDELINES FOR JEWISH COMMUNITY RELATIONS AGENCIES**

**FROM THE
ISRAEL TASK FORCE
OF THE
NATIONAL JEWISH COMMUNITY RELATIONS ADVISORY COUNCIL**

NOVEMBER 7, 1975

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ISRAEL TASK FORCE

of the

NATIONAL JEWISH COMMUNITY RELATIONS ADVISORY COUNCIL
55 West 42nd Street New York, N. Y. 10036
Task Force Chairman, Theodore R. Mann

National Jewish Community Relations Advisory Council
Israel Task Force

COMBATTING THE ARAB ECONOMIC WARFARE AGAINST ISRAEL AND JEWS

A Position Paper and Guidelines
for Jewish Community Relations Agencies

Introduction

THE ARABS have used boycott as an economic weapon in their war against Israel since before the creation of the Jewish State. With the Arab oil embargo of 1973, the Arab economic war against Israel expanded vastly in scale and scope, impinging directly and drastically on the behavior of American business and vitally affecting American Jewish interests.

Arab oil suddenly made the Arabs the possessors of enormous sums of money, available for the purchase of goods on the world's markets and for investment in foreign governmental, commercial and industrial securities and obligations. They soon made it clear that they intend to exploit their new-found wealth to further their war against Israel, not only by boycotting her but by extending their boycott to governments, firms and other establishments that trade with Israel, or trade with those that trade with Israel, or may be assumed to be sympathetic to and supportive of Israel. That means Jews everywhere; thus, the boycott has become all-out discrimination against Jews as well as against Israel and Israelis.

Much of this discrimination is stipulated by the Arabs as a condition of doing business. But much of it -- perhaps more of it -- is practiced by American firms on their own initiative in efforts to make themselves acceptable to the Arab customers for whom they vie. The volume, variety and profitability of available Arab business in a period of economic recession are powerful lures.

Combatting the Arab boycott has been a high priority of the Anti-Defamation League of B'nai B'rith for upward of a quarter century. Since the 1973 Arab oil embargo, the economic warfare waged by the Arabs has been a central priority concern of all the Jewish community relations agencies.

The NJCRAC Israel Task Force recommends that the Arab economic warfare be combatted with energy and determination by all Jewish community relations agencies, utilizing all applicable approaches and techniques, including:

- (a) Invocation of law -- including demands that regulatory and other authorities vigorously enforce existing policies of government; litigation to enjoin infractions of law or require conformity with it; and the formulation and advocacy of further legislation deemed necessary.
- (b) Approaches to banking, business and other firms, and to public officials, to persuade them to resist Arab threats and blandishments.
- (c) Educational activities designed to raise the national awareness of the threat that the Arab economic warfare poses to American business, to the credibility of America's posture and that of all the western democracies in world politics, to the integrity of America's foreign policy, to the ethical values on which America rests, to the welfare of individual Americans.

The body of this paper sets out in greater detail the collective judgments of the NJCRAC Israel Task Force concerning the nature, magnitude and import of the Arab economic warfare; the principal actions already undertaken by the constituent agencies that have been chiefly involved in combatting that warfare; and a number of recommendations for further action by national and local constituent agencies.

1. Nature and Magnitude of the Arab Boycott

THE KEYSTONE of the Arab economic war is "blacklisting" -- i.e., the designation of specific financial institutions, business firms, etc. with which Arab governments -- or non-governmental Arab interests -- will not deal.

Among the conditions accepted by American firms or, often, self-imposed by them to "qualify" for sales, contracts or other business with an Arab government, company or national, are the following:

1. Agreement to refrain from doing business in Israel or with the government of Israel, or with Israeli companies or nationals.
2. Agreement to refrain from doing business with any American company engaged in trade in or with Israel, its companies or nationals.
3. Agreement to refrain from doing business with any company whose ownership or management is predominantly Jewish and to remove (or refrain from selecting) officers or corporate directors who are Jewish.
4. Agreement by sellers to ship products only on carriers which are not on the Arab boycott list; and by banks to honor only letters of credit that require evidence that these restrictions have been met.
5. Agreement to refrain from hiring or promoting Jewish employees or to dismiss Jewish employees.

Greatest impact of the Arab boycott is felt in the import-export field. The Export Administration Contract Act requires exporters to file reports of requests by foreign countries for compliance with restrictive trade practices. Thirty-one firms reported 10,884 such transactions in 1973; twenty-three firms reported 785 in 1974. That the later figures reflect widespread failure to report rather than a decline in boycott requests is evident: in the second quarter of 1975 alone, after public

agitation had caused the Office of Export Administration to file charges against exporters who had failed to report, some 2,112 requests were reported by 213 firms. Plainly, in 1973 (and before) the reports were regarded as formalities, to be lost in the files of the Commerce Department, and were submitted with routine honesty by at least some firms; when official scrutiny appeared threatening, reporting declined, to be resumed to a degree under threat of prosecution. Even these statistics understate the case; only twenty exporters took the regulations seriously enough to report regularly. Moreover, the regulations apply to exporters only, and not to the hundreds of other firms and institutions with which the Arabs do business.

The extent and seriousness of capitulations to Arab pressures were exposed in a series of revelations by the Anti-Defamation League of B'nai B'rith:

- Fourteen steamship lines, including three receiving federal subsidies, routinely executed "certifications of boycott" which banks, in turn, required before honoring letters of credit -- a complete capitulation to Arab boycott regulations, resulting in "daily violation" of U. S. maritime law and other statutes.
- The U. S. Army Corps of Engineers -- as subsequently confirmed by the Army following an independent investigation -- systematically excluded Jewish soldiers from projects undertaken by the Army in Saudi Arabia.
- Arab blacklisting of "Jewish" banking houses in Europe from syndicates formed to finance a major Kuwaiti investment was followed by similar Arab actions against banks and businesses with Jewish owners, managers or directors. Several of the cases involving discrimination against American citizens by American corporations have been made the subjects of formal complaints (detailed later in this paper) by the Anti-Defamation League under Title VII of the U. S. Civil Rights Act.

II. U. S. Policy and the Posture of the Administration

IT IS THE POLICY of the United States, as enunciated in the Export Administration Act,

"(a) to oppose restrictive trade practices or boycotts fostered or imposed by foreign countries against other countries friendly to the United States, and (b) to encourage and request domestic concerns engaged in the export of articles, materials, supplies, or information, to refuse to take any action, including the furnishing of information or the signing of agreements, which has the effect of furthering or supporting the restrictive trade practices or boycotts fostered or imposed by any foreign country against another country friendly to the United States."

Under Arab boycott pressures, American business firms become parties to the implementation of foreign nations' policies directly in conflict with our own national policies, participate in the secondary economic boycott of a nation with whom the government of the United States maintains friendly relations, participate in conspiracies in restraint of trade in violation of anti-trust laws, and engage in discriminatory practices against U. S. citizens in violation of civil rights laws.

We therefore deem the Arab boycott and the Arab economic warfare it has spawned to be American issues affecting the integrity of U. S. policy and the rights of U. S. citizens; and we believe that they can and must be addressed by direct measures of the American government, grounded in the stated policies and laws of the United States.

Though President Ford, in the wake of the disclosure of discrimination against Jewish firms and individuals at the behest of or in conformity to the Arab boycott, denounced such discrimination as "totally contrary to the American tradition and repugnant to American principles" and to United States policy, neither then nor since has he said anything about the illegality and inconsistency with U. S. policy of the secondary boycott

of firms that do business with Israel. We regard both discrimination and secondary boycotts as serious and threatening to American interests.

We reject the contention of some officials of our federal government that the Arab boycott, as an aspect of the Arab-Israeli conflict, is tractable only in the context of a resolution of that conflict.

Federal administrative agencies have acted only feebly against discrimination and virtually not at all against secondary boycotts of U. S. and foreign firms; and, indeed, have acceded to and at times abetted the boycott.

The NJCRAC Israel Task Force concurs in the finding by some of its constituent organizations that the Administration has procrastinated and been evasive in enforcing laws against both boycott and discrimination. In meetings with federal officials, the agencies have made vigorous representations for firm federal governmental action and, in correspondence with such officials, have been critical of their failure to take such action. These criticisms and representations have had some limited results; e.g.,

. The Secretary of Labor issued a memorandum to the heads of all federal agencies notifying them that Executive Order 11246 and guidelines issued pursuant to it "prohibit federal contractors from discriminating on the bases of religion or national origin when hiring for work to be performed in the United States and abroad...regardless of exclusionary policies in the country where the work is to be performed or for whom it is to be performed."

. The Attorney General, in separate exchanges with the American Jewish Committee and the American Jewish Congress, gave assurances that the Anti-Trust Division of the Department of Justice would actively investigate the applicability of anti-trust legislation to restraint of trade caused by boycott practices and not only was "moving against violations of law resulting from the Arab boycott but also in developing new administrative and legislative approaches to meet those unacceptable effects of the boycott which are not now proscribed." Both agencies have responded that little concrete evidence of such activity was visible.

. The Attorney General has received evidence furnished by the Anti-Defamation League of B'nai B'rith which, if corroborated by Justice Department investigation, could result in proceedings against the firms involved for violation of U. S. anti-trust laws.

. The Secretary of Commerce, under pressure from many sources, and while continuing to refuse to take more effective action (see later in this paper), offered his personal good offices to seek reversals of decisions of American companies to withdraw from or refuse to do business with Israel. More recently, the Commerce Secretary has required U. S. firms to report on boycott demands and on their responses to such demands; but continues to refuse to make these reports public, or even to provide Congress with them.

. Responding to an inquiry by the American Jewish Committee, the U. S. Controller of the Currency, in a strong letter, apprized banks and lending institutions of relevant laws and policies against discrimination; however, he took no action pursuant to his authority to issue "cease and desist" orders to stop banks from requiring boycott compliance certificates before paying on letters of credit to Middle East shippers.

III. Invoking Federal Laws and Regulations

EXISTING FEDERAL LAW incorporates a battery of effective and administrative and legal weapons against the Arab economic warfare, which remain neglected by the administrative and regulatory agencies of government.

A. Demands for Vigorous Administrative Enforcement

We concur and join in representations by a number of our constituent national agencies to the Administration and to various responsible governmental officials for vigorous enforcement and imaginative application of existing federal laws. Specifically, we endorse the following recommendations incorporated in a memorandum to the President of the United States prepared by the American Jewish Congress:

1. Under the Export Administration Act

(a) Barring of exports from the U. S. by any American company that is subject to an agreement not to trade with any country friendly to the U. S., (b) requiring American exporters to give notice as to whether they intend to comply with any Arab boycott requests and (c) ending the confidential status of reports on boycott compliance by American exporters.

2. Under the Federal Trade Commission Act

(a) Imposing a penalty or additional duty on any article -- including oil and oil products -- imported into the U. S. under any agreement or condition implementing the Arab boycott, (b) denying U. S. shipping and clearance privileges to vessels of any country at war with Israel that denies facilities of commerce to American ships or American citizens, and (c) invoking against the Arab boycott those provisions prohibiting unfair competition.

3. Under the Shipping Act of 1916

Prohibiting American vessels from refusing to carry Israeli cargo or to stop at Israeli ports.

4. Under the Bank Security Act

Requiring -- and making public -- reports of the flow into the U. S. of Arab petrodollars.

5. Under the Securities Exchange Act

Monitoring efforts by Arab investors to obtain control of or substantial interests in any publicly-held American company.

6. Under the Federal Deposit Insurance Act

Prohibiting banks (a) from verifying letters of credit which contain provisions enforcing the Arab boycott and (b) from complying with discriminatory restrictions as a condition for obtaining deposits or investments.

7. Under the Foreign Investment Study Act

Reporting on the effect of the Arab boycott on American business and employment practices.

8. Under the Sherman Anti-Trust Act

Enforcing more vigorously prohibitions against restrictive trade practices.

We also recommend (as proposed by the American Jewish Committee, the American Jewish Congress and the Anti-Defamation League of B'nai B'rith in Congressional hearings and also by the American Jewish Congress in hearings conducted by the Securities and Exchange Commission) that, just as it is being recommended that SEC regulations require that the record of corporations with regard to environmental concerns be disclosed in all offerings of corporate securities, similar disclosure be required in all offerings with regard to participation in the Arab boycott.

B. Legal Actions

In the face of the laggard and evasive posture of the national Administration and the evident reluctance of federal agencies to use their statutory powers of investigation and regulation against unlawful collaboration by American companies with the Arab economic warfare, NJCRAC agencies have undertaken a variety of legal actions, which we endorse and support.

1. Complaints

Under Title VII of the Civil Rights Act, formal charges of violations have been filed with the Equal Employment Opportunity Commission by the Anti-Defamation League of B'nai B'rith against the following firms:

- Aramco, an oil company operating in Saudi Arabia and fully aware of that country's barriers against Jews, effectively discriminates against American Jews by stating on its employment applications that "ability to obtain a visa from the Saudi Arabian Government" is a condition of hiring. (Some twenty years ago, the American Jewish Congress was successful in a similar proceeding against Aramco under the New York State anti-discrimination law.)
- Bendix-Siyanco, a joint venture of Bendix Field Engineering Corporation and Saudi Maintenance Company, Ltd., which recruits management personnel, technicians and instructors for the Saudi Arabian Army Ordinance Corps, screens out Jewish job applicants by requesting religious information on its employment forms -- a violation not only of the Civil Rights Act but also of Presidential Executive Order 11246. (The Chairman of the Board of Bendix-Siyanco claims that the offending form had been withdrawn; but he conceded in a statement to the press that the withdrawal will not affect the composition of the work force, thus, in effect, confirming that the company's discriminatory practices continue.) In addition to the complaint filed with EEOC, ADL is calling upon the Department of Defense to conduct an equal opportunity compliance review as provided for by Executive Order 11246.
- The Hospital Corporation of America, by asking for religious identification, screens out Jewish applicants for jobs in a Saudi Arabian hospital with which it has a contract to recruit personnel.
- International Schools Services, a teacher recruitment agency, issues job orders in behalf of the United Arab Emirate State of Abu Dhabi which makes impossible the employment of any teacher who has "a Jewish surname, or who is an American Jew or who has Jewish ancestors." Because ISS operates under contract with the U. S. Department of Health, Education and Welfare, the Anti-Defamation League of B'nai B'rith is also asking HEW's Office for Civil Rights to conduct a compliance review of ISS discriminatory job recruitment procedures.
- McGraw Associates, a Florida firm with contracts for construction work in Saudi Arabia, recently placed a newspaper want ad for skilled workers which explicitly states: "We trust you are aware of the discrimination policies of the Arab World before replying to this ad."

2. Litigation

The Export Administration Control Act requires "that all domestic concerns receiving requests for the furnishing of information or the signing

of agreements as specified in that section [viz., the section cited on page 7 of this paper] must report this fact to the Secretary of Commerce for such action as he may deem appropriate to carry out the purposes of that section."

In late summer, 1975, the Anti-Defamation League of B'nai B'rith revealed that the Secretary of Commerce was circulating tenders for bids from Arab nations which include boycott provisions. This is a paradox, the Commerce Department in effect facilitating acts in compliance with the Arab boycott which exporters are required to report to the Department for scrutiny as to their conformity to U. S. policy. When confronted with this inconsistency, Secretary Morton took only the inadequate step of stamping such discriminatory tenders with a statement of U. S. policy.

The Anti-Defamation League of B'nai B'rith is suing to enjoin and restrain the Secretary of Commerce from distributing tenders containing restrictive and boycott provisions. In addition, the Anti-Defamation League of B'nai B'rith and -- in a separate suit -- the American Jewish Congress, are suing under the Freedom of Information Act to gain access to the reports received by the Export Control Administration.

Secretary Morton defended his refusal to release the identities of the exporting concerns that had filed reports because disclosure "might reveal to their trade competitors valuable intelligence" and render the concerns vulnerable to "obvious countermeasures and pressures by various individuals and groups."

Secretary Morton has also refused to provide such information, even under subpoena, to the Subcommittee on Oversight and Investigations of the House Commerce Committee -- an intransigence that has provoked Congressman Lent (R-NY) to introduce a resolution requiring the Secretary to supply the information. The House Committee was conducting hearings on the issue when this paper was prepared.

The agreement between Saudi Arabia and the U. S. (June, 1974) committing our government to be "sensitive to the social, cultural, political and religious contexts of Saudi Arabia" in all programs undertaken by the joint U. S.-Saudi Commission on Economic Cooperation is being challenged in a legal action by the American Jewish Congress, as a violation of the First and Fourteenth Amendments, on the ground that it implies "U. S. willingness to accommodate the religious bias of the Saudi Arabian government and to exclude Jews from projects authorized by the Commission, thus acquiescing in Saudi Arabian discrimination against Jews."

IV. Federal Legislation

EVEN THE MOST conscientious enforcement of existing law would leave some loopholes, for no federal law presently in force covers all five forms of complicity in the Arab economic warfare delineated on page 5; nor does any of the approximately forty bills dealing with foreign investments and with one or more aspects of that warfare that have been introduced in the current session of Congress. We conclude that there is pressing need for comprehensive legislation to focus on and facilitate legal action against those who foster or collaborate in the application of boycott provisions. We call for legislation that would impose severe civil and criminal penalties in connection with the two major aspects of the Arab economic warfare -- discrimination and boycott.

A draft of such proposed legislation, prepared by the AJCongress in consultation with the AJCommittee and ADL and endorsed by the NJCRAC Israel Task Force, would make it a federal crime for any company or individual doing business in the U.S. to exclude from trade, or to require other companies or individuals to boycott, any foreign nation that maintains diplomatic relations with the U.S. It would also prohibit discrimination in the selection of boards of directors, suppliers and contractors on grounds of race, religion, sex or national origin.

Of the bills now pending, we regard the Holtzman-Rodino Bill -- HR 5246 -- to Amend Title 18 of the U.S. Code as most nearly approaching the legislation we deem necessary. That bill would impose stiff

criminal and civil sanctions against both those who initiate and those who accede to boycott pressure by practicing discrimination or engaging in secondary boycotts. A major defect in the bill is its requirement of proof that those who accede to boycott did so under coercion. We hold that a showing of a pattern of compliance with the boycott, on its face, should be sufficient to convict.

No Senate counterpart to HR 5246 has been introduced. The lack of Senate sponsors must be attributed in some part to the opposition voiced by Justice Department representatives at House Committee hearings to this or similar legislation.

Two Senate bills contain provisions that we deem helpful.

S. 953, An Amendment to the Export Administration Act of 1969, sponsored by Senator Adlai E. Stevenson, III of Illinois, Chairman of the Senate Banking Subcommittee on International Finance, would expand the scope of mandatory disclosure of any form of boycott pressure and compliance intentions, and give the President express authority to control U.S. exports, including curtailment of any exports to, investments in, or other economic transactions with countries that impose boycotts.

S. 425, the Williams Bill to Amend the Securities and Exchange Act of 1934, would circumscribe closely the extent to which foreign investors could invest in American corporations and empower the President to prohibit such investment in any case in which he deemed the national security, foreign policy or domestic economy of the United States to be adversely affected by such investment.

NOTE: As this report was being duplicated, another bill, combining provisions of the Stevenson and Williams

bills and stipulating public disclosure of boycott approaches and compliance, had passed the International Finance Subcommittee of the Senate Banking Committee.

We regard the federal Administration's opposition to such legislation as indefensible; and deem the contention of Administration spokesmen that the legislation would discourage needed foreign investments and encourage other nations to restrict American investments in their jurisdictions to be without merit.

We are profoundly concerned about the seeming reluctance of the Congress to move any of the pending measures, or other proposals that we have endorsed, toward enactment.

V. Administrative, Legal and Legislative Action at the State Level

INASMUCH AS many businesses are regulated by state as well as federal law,

We endorse the recommendation of the Israel Task Force Conference of March 23024 that administrative, legal and legislative measures to counter the Arab economic warfare be vigorously pursued at the state level.

A. Regulatory Agencies

As in federal law, so in many state statutes, there are provisions under which state regulatory agencies could proceed against various unlawful practices undertaken under pressure of the Arab economic warfare.

A legal memorandum prepared for the American Jewish Committee suggests, based on an analysis of relevant provisions of New York State law, the following possible grounds on which regulatory agencies in that state could act against discriminatory practices predicated on Arab demands:

- A banking or investment banking firm or other company that complied with the demands of the Arab blacklist but withheld the information from its customers or shareholders might be charged with fraudulent misrepresentation under the General Business Law (Section 349), on the ground that many consumers would no doubt refuse to deal with a company participating in the Arab boycott and shareholders might wish to take action to change company policy to avoid loss of good will or to forestall suits against the company.
- A banking organization that engaged in religious discrimination in connection with loans or in dealings with the State of Israel might be charged under the Banking Law (Section 9(d)), which requires the State Superintendent of Banking to enforce a section of the State Executive Law declaring it unlawful for any creditor or officer, agent or employee of such creditor to discriminate "in granting, withholding, extending or renewing, or in the fixing of rates, terms or conditions, of, any form of credit."
- A company persuaded by Arab pressure to breach a contract could of course be sued for that breach, and a suit for conspiracy to breach the contract could also be brought against those who induced the breach.
- Under New York's Anti-Trust statute (the Donnelly Act) a suit for restraint of trade must prove that the restraint is "unreasonable." Reasonableness is determined on a case-by-case basis. While it is

well established that companies and individuals may refuse to deal with whomever they choose, this freedom does not extend to concerted refusals to deal. The New York courts have never declared concerted refusals to deal illegal per se; they have formulated a rule whereby an 'unjustified refusal to deal with a third person becomes illegal when done in pursuance of a combination with others.' ... The standards that have evolved appear clearly to bar concerted refusals based on private political considerations or consideration of religious origin.

We recommend that local Jewish community relations agencies undertake studies of state and local laws, with a view to identifying provisions that may be applied against manifestations of the Arab economic warfare; and that they meet with key state and local officials to encourage their implementation of such laws.

We further recommend that Jewish community relations agencies urge state and city agencies, as appropriate to their jurisdictions and functions, to

- require non-discriminatory conduct by the banks and investment banking firms with which they deal.
- require of investment banking firms, banks and commercial establishments with which they do business, that, as a condition, they certify that they do not refuse to deal with or participate in any financial transaction with any other person or entity merely because that other person or entity does business with or hires persons of any religious affiliation, and do not refuse to do business with any country to whom our government has furnished military and/or economic assistance.
- require similar certifications to be made by commercial enterprises with which the states or cities do business.

Requests by the American Jewish Committee and the American Jewish Congress for declarations of position on the Arab boycott by State Banking Commissioners have not only elicited such statements but resulted in communications from some Commissioners to the banks under their jurisdictions emphasizing antidiscriminatory provisions of state banking law.

The American Jewish Committee also has written to the attorneys general of all 50 states, urging them to enforce all applicable laws of their respective states against discrimination and other practices related to the Arab boycott.

In addition, national agency regional offices, together with local member agencies, have elicited resolutions from the California Fair Employment Practice Commission and the Human Rights Commission of the City of San Francisco, for example.

We recommend that communities seek similar resolutions from appropriate state and local bodies.

B. State Legislation

Two states -- New York and Illinois -- have enacted legislation aimed specifically at the Arab economic warfare, and similar legislation is pending in California and other states.

The New York law makes it unlawful "for any person to discriminate against, boycott, or blacklist, or to refuse to buy from, sell to or trade with, any person, because of the race, creed, color, national origin or sex of such person, or of such person's partners, members, stockholders, directors, officers, managers, superintendents, agents, employees, business associates, suppliers or customers."

Apart from the prosecution of violators under this law, it will be used to compel testimony by businessmen, under subpoena by a Committee on Investigations of the State Legislature, as to approaches for compliance with Arab demands and as to their responses to such approaches. In the absence of specific outlawing of some of the kinds of discrimination detailed in the law, such testimony cannot be compelled.

We regard this New York law as a model, at this time;
and recommend that Jewish community relations agencies
seek the enactment of similar laws in other states.

VI. Other Community Relations Techniques

A. Public Interpretation

To increase public awareness of the nature and magnitude of the Arab economic warfare, the constituent national agencies of the NJCRAC have pursued dual goals: (1) elucidation to the broad general community of the fundamentally American, not Jewish, import of the issue in terms of economic, social, diplomatic and other consequences and (2) the alerting and preparation of Jews to be effective forwarders of this message and facilitators of exposure and counteraction.

In pursuit of the former of these objectives, backgrounders and other papers describing the Arab boycott apparatus and its operation, analyzing the financial results of the OPEC oil price gouge and projecting the possible impact of huge Arab investments in American securities and other obligations, and exposing some of the discriminatory and other adverse effects on American business and the American way of life of American capitulation to or collaboration with the Arab economic warfare have been prepared and disseminated by the American Jewish Committee, the American Jewish Congress and the Anti-Defamation League of B'nai B'rith, as well as others; the former agency being the most prolific and giving heaviest emphasis to this aspect of the total anti-boycott program.

Some of these materials are circulated generally, made available to the press and other media and, through local Jewish community relations agencies and the regional offices of the national agencies, to broad sectors of the general public. Others are differentiated for different audiences -- e.g., businessmen, academics, blacks -- and circulated among them and placed with journals and other organs that they

read. These writings are augmented by personal contacts, attendance at meetings, participation in forums and seminars and the utilization, generally, of all opportunities to convey information and interpretation by the spoken word.

Of the approaches employed vis-a-vis Jews, a notable technique is that whereby the American Jewish Committee conducted "consultations" with Jewish businessmen, to raise their own consciousness of the problem and to encourage and equip them to be a kind of watchdog group within the business community to discover, expose and use their influence to avert or to correct compliance with the Arab boycott or practices contributing toward the Arab economic warfare in other ways.

In the earlier years of the Arab boycott, the success of campaigns by the Anti-Defamation League of B'nai B'rith against the Brown and Williamson Tobacco Company, the Coca Cola Company and American Express was made possible in the last analysis by an aroused public opinion, Jewish and non-Jewish.

We believe that Americans are fundamentally repelled by Arab boycott and other practices in furtherance of the Arab economic warfare and that its disapproval of the practices is likely to be reinforced by public rejection of such practices by corporate and university executives. We accordingly recommend that efforts be made to obtain public statements from leading corporate educational and other executives, preferably explicit against the Arab boycott, or, alternatively, in support of American democratic principles applied to business practices.

The American Jewish Committee, by such an effort, drew positive responses from a substantial number of major corporations and a

gratifyingly large number of universities and education associations. Notable among the corporations are IBM, Bank of America, General Electric, Westinghouse, Xerox, Ford, Eastman Kodak, First National City Bank, and Columbia Broadcasting.

An advertisement in Philadelphia newspapers by the First Pennsylvania Corporation stated that the bank had no intention of withdrawing from its commercial relationships with Israel, but, to the contrary, would seek to enhance them.

This First Pennsylvania Corporation ad might well serve as a model for similar statements to be stimulated by local Jewish community relations agencies.

In addition to such statements, resolutions on free trade policy by various Chambers of Commerce are to be encouraged, as are statements by state and national voluntary organizations protesting discriminatory Arab pressures (e.g., the one drafted by the American Jewish Committee for issuance by the National Association of Human Rights Workers).

More intensive educational efforts both within the Jewish community and with key segments of the general community are recommended; utilizing especially special seminars and conferences for businessmen, governmental officials, and university administrators, in which the problems of the Arab economic warfare can be discussed in depth.

B. Exposure and Negotiation

Often, as the experience of the Jewish community relations field over many years attests, the simple confrontation of responsible officials of

a company or institution with evidence of unlawful or unacceptable practice is sufficient to bring about rectification. In some instances, public exposure may be deemed advisable. Such approaches have achieved satisfactory outcomes in a number of cases involving collaboration in various ways in discrimination arising out of Arab pressure.

-- After the lodging of a protest with the Secretary of Defense by the American Jewish Committee over the absence of a federally-mandated anti-discrimination clause in a contract between the Pentagon and the Vinell Corporation for the training of Saudi Arabian security forces, the contract was amended by addition of such a clause.

-- Several national and local member agencies were instrumental in causing banks in Houston, Chicago and Los Angeles, and a new banking institution in which they were principals, to issue statements of policy pledging nondiscrimination in employment. The new banking venture is the United Bank, Arab and French, New York -- controlled jointly by Arab and American interests -- giving especial significance to its public declaration.

-- The purchase of Kiawah Island, off the coast of South Carolina, by the Kuwait Investment Company led the Charleston Jewish Community Relations Committee and the regional office of the Anti-Defamation League of B'nai B'rith to launch a campaign that eventuated in a public commitment to equal opportunity and nondiscrimination by the American development company hired by the Kuwaitis.

-- The International Bank for Reconstruction and Development replied to a letter from the American Jewish Committee expressing concern about policies of the World Bank as they might affect Jewish personnel with a statement that "it is the firm policy of this organization to treat its personnel in a manner completely free from discrimination on grounds of religion, race, national origin or social condition." The statement added: "The Bank does not permit in a request for tenders of bids for contracts any condition that precludes participation by qualified suppliers because they do business with Israel or are located in a country that trades with Israel." Also that the Bank has exacted assurances from Saudi Arabia that no bar to the issuance of visas to Bank staff members will be posed on grounds of religion.

-- The Advest Company, responding to a protest by the American Jewish Committee about an invitation that it had issued to clients inviting participation in a trip to the Middle East which asked them to supply "a signed statement by a clergyman attesting that the participant is a Christian," expressed "regret," disclaimed any discriminatory intent, and pledged "to make trips open to all" and to "make no attempt to have people participate under false colors."

-- Challenges, demands and representations by the American Jewish Congress elicited the following actions:

The executive vice president of AT&T wrote that its \$100 million loan from Saudi Arabia (announced in July 1975) "in no way compromises AT&T's commitment to recruit and promote the most qualified candidates into its jobs, including Jewish men and women. We clearly will not be governed by any blacklist or other restrictions that would require us to discriminate in any aspect of our business."

The New York Times apologized for running a help-wanted ad for employment in Kuwait specifying "Arab-American only," and promised to tighten its procedures covering the acceptability of advertising and to display prominently and at intervals in the newspaper a statement of its nondiscriminatory policy regarding ads.

The Secretary of Defense, asked for assurances that the Department would accept bids for manufacture of uniforms for the Saudi Arabian army -- which the Department had solicited -- without regard to Saudi Arabia's blacklisting of Israel and of Jewish firms, responded that "no discrimination is tolerated in the solicitation, the award or the performance of these or any other Department of Defense procurements."

Educational Institutions

Among the most important resources the Arab oil states seek in the United States are educational, technological and training services. Universities, as well as technical service and training companies of all kinds, no less than industry, have eagerly pursued contracts to perform such services. In a number of notable instances, educational institutions have declined or withdrawn from undertakings because the Arabs sought to impose terms requiring discriminatory practices.

-- Following representations by faculty and graduate students, which include many Jews, President Jerome Wiesner of the Massachusetts Institute of Technology addressed a letter to the Saudis stating that any act of racial or religious discrimination toward an M.I.T. participant in a project for which a contract was being negotiated would be cause for cancelation of the contract. The negotiations were suspended.

-- Through efforts of national and local member agencies, the Midwest Universities Consortium for International Activity suspended its relationship with the University of Riyadh in Saudi Arabia because Michigan State University Dean Ralph Smuckler, an officer of MUCIA and a Jew, was denied a visa to Saudi Arabia.

-- Jewish faculty members of Temple University in Philadelphia, which was negotiating a contract for a special graduate program for students from the University of Riyadh, expressed concern about Saudi Arabia's policy against issuing visas to Jews and also about clauses in the contract that would allow the Saudis to set standards of admission and instruction for the program. They brought their concerns to the Philadelphia JCRC, which was able to persuade Temple to quietly drop the program.

C. Fact Finding

Successful use of any of the techniques and approaches thus far discussed requires the meticulous marshaling of carefully verified facts. Success in litigations under existing laws may depend on the establishment of facts to prove guilt. The enactment of specific further legislation requires support, advocacy and interpretation of such legislation by an informed electorate. Approaches calculated to dissuade companies from complying with or otherwise collaborating in the Arab economic warfare must be predicated on facts about the companies' practices.

Only the Arabs proclaim their warfare publicly; the American companies that, for the most part, implement it do so quietly and generally in a way calculated to escape public notice.

Accordingly, we recommend that member agencies give major priority to fact-finding on the national, state and local levels.

While recognizing that the Anti-Defamation League of B'nai B'rith places greater emphasis on the use of investigative techniques than do the other national agencies of NJCRAC, all pursue efforts to discover and expose instances of discriminatory and other unlawful or blameworthy practices in furtherance of the Arab economic warfare; and we recommend that these efforts be continued and intensified by national and local member agencies.

Discovery and exposure of compliance with or participation in the Arab economic warfare is likely to be enhanced by raising the Jewish community's level of awareness of its scope and impact.

Accordingly, we recommend special efforts to inform and heighten the sensitivities of Jewish businessmen, employees, executives and directors of banks and corporations, stock brokers, and academicians to the Arab economic warfare.

Such persons, so sensitized, may be expected to discover or detect evidence of complicity in the Arab campaign through their own business associations and their reading of business news in the general press and from specialized journals in their respective businesses or professions.

We recommend the cultivation of contacts with banks, corporations and universities at the local level and the utilization of such contacts, on an informal basis, to discuss with executives and administrators their experience with the Arab economic warfare, in the absence of any evidence or suspicion of their involvement in it.

In the absence of personal relationships, requests for meetings with executive officers or administrators for the purpose of such discussion may be made formally in writing.

We recommend that, in all cases, assurances of non-participation in the Arab economic warfare be requested in writing and for the record.

D. Stockholder Actions

It has been found that corporate management, while sensitive to charges of complicity in furthering the Arab economic warfare, often is reluctant to declare publicly and forthrightly its determination not to comply with or participate in boycott or allied discriminatory practices, and ingenious in concealing such compliance or participation. Questions by stockholders at stockholders meetings have proven effective in eliciting information about approaches to corporate officials for compliance with the boycott or other

Arab demands as a condition of obtaining Arab business, or obtaining public declarations of adherence to nondiscrimination, and may on occasion prevent a company from agreeing to Arab demands. Such a question asked at a stockholders' meeting of IBM, pursuant to an American Jewish Committee program to promote corporate responsibility elicited from the Chairman of IBM the statement that the corporation "has not been blacklisted in any country... not received any such pressures...not aware of any such pressures. Should we receive any, we will resist them."

The American Jewish Congress has prepared and disseminated a memorandum embodying suggested questions to be raised by stockholders and a model resolution to be proposed for adoption.

We recommend that stockholders in corporations be encouraged and helped to raise questions about the experience of corporate officials with Arab demands and to propose the issuance of public statements affirming the corporation's policy of nondiscrimination and non-participation in boycott.

A Caveat

Before undertaking any representations or taking any action implying or charging complicity in the Arab economic warfare, the facts should be scrupulously checked. The dropping of a firm from the Arab League boycott list, for example, does not invariably signify that the firm does not continue to do business with Israel. Therefore, we strongly recommend that, besides investigating and confirming all facts before taking action, community agencies consult with the NJCRAC Israel Task Force and its national member agencies for evaluation of the facts and determination of action to be taken, based on previous experience.

EXHIBITSA. Letters of State Banking Commissioners
to Financial Institutions Under Their JurisdictionFrom Banking Dept., State of New York

As you are no doubt aware, there have been recent reports of alleged involvement by banks in discriminatory practices against American citizens or American business firms, particularly as related to the Arab boycott. It has also been reported that banks may be offered substantial deposit or loan business from Arab countries, subject to the condition that no member of the Jewish faith sit on the bank's board of directors or control any significant amount of the bank's stock.

I wish to emphasize that all financial institutions subject to the jurisdiction of this Department must scrupulously avoid any practices or policies that are based upon considerations of race or religion of any customer, stockholder, officer, director or employee of a bank.....

By means of its bank examinations, this Department will ensure adherence of all institutions to a policy of non-discrimination.

From Commissioner of Banks, Commonwealth of Massachusetts

One of the major responsibilities of this Office is to insure that each bank meets the needs of the community it was chartered to serve. While observing those credit and risk factors inherent to the banking business, all the activities of all banks must be performed with this overriding principle of service to the public in mind. Discrimination based on religious affiliation or racial heritage is incompatible with the public service function of a banking institution in this Commonwealth.

By means of its regular examination function, this Office will assure the adherence of banks to a nondiscriminatory policy in the circumstances mentioned, as well as in any other respect where racial or religious background might similarly be placed in issue.

From Commissioner of Banks and Trust Companies, State of Illinois

The Commissioner of Banks and Trust Companies is issuing this memorandum to remind Illinois state chartered banks that they must avoid any discriminatory practices or policies based upon consideration of the race or religious beliefs of the customers, stockholders, officers or directors of the bank. For example, this agency would consider it a discriminatory practice to accept any offering of large deposits and loans by agents of foreign investors on the condition that no member of the Jewish faith sit on the bank's board of directors or control any significant amount of the bank's outstanding stock.

B. Resolution of the California Fair Employment Practice Commission

WHEREAS, it is the public policy of the State of California, as enunciated in the Fair Employment Practice Act and as evidenced in the charge placed upon the Fair Employment Practice Commission, to prevent discrimination in the State; and

WHEREAS, there is evidence, which may affect employment in the State, that Arab investment groups have indicated that as a condition of investment or trade they will require American business firms to discriminate in the employment of Jews; and

WHEREAS, President Ford has characterized such a practice as "totally contrary to the American tradition and repugnant to American principles;" and

WHEREAS, such religious or ethnic discrimination, whether imposed on employers or voluntarily adopted by them in anticipation of such foreign investment or trade, is directly contrary to provisions of the California Fair Employment Practice Act; now therefore

BE IT RESOLVED, that if such violation of the law become manifest in this State, this Commission will take necessary and appropriate steps to correct them, and will use its authority and good offices wherever possible to prevent such practices from occurring.

C. Resolution of the Human Rights Commission
of the City of San Francisco

WHEREAS, there is evidence that some foreign investment groups have indicated that, as a condition of investment, American business firms will be required to discriminate in matters of employment on religious and ethnic grounds;

WHEREAS, such discrimination, whether imposed on American business firms or adopted voluntarily by American business firms in anticipation of such foreign investment, is contrary to American laws and mores; therefore

BE IT RESOLVED, that the state and federal agencies concerned with the enforcement of civil rights laws be urged to take necessary steps to prosecute and forestall this special violation of the law; and

BE IT RESOLVED, that the Human Rights Commission of the City and County of San Francisco take whatever steps may be appropriate and feasible to correct and prevent such abhorrent practices within the City and County of San Francisco.

D. New York State Anti-Boycott Law

Following is the operative clause of this law, which is (as of November, 1975) regarded a model for other states:

It shall be an unlawful discriminatory practice

(i) for any person to discriminate against, boycott or blacklist, or to refuse to buy from, sell to or trade with, any person, because of the race, creed, color, national origin or sex of such person, or of such person's partners, members, stockholders, directors, officers, managers, superintendents, agents, employees, business associates, suppliers or customers,

or (ii) for any person wilfully to do any act or refrain from doing any act which enables any such person to take such action.

(Other sections extend coverage of the law to acts committed outside the state against resident persons or corporations; prohibits non-residents or foreign corporations violating the law from doing business in the state; and sets forth procedures to be followed in serving complaints, holding hearings and issuing cease and desist orders.)

E. Specimen Declarations by Firms and Banks

The advertisement of the First Pennsylvania Corporation is reproduced on the reverse side of this page.

Following is an exchange of letters between the Jewish Federation Council of Greater Los Angeles and the Irving Trust Company of New York.

From the Jewish Federation Council of L. A., May 8, 1975,
to Irving A. Rice, President, Irving Trust Company:

"Following the publication of stories in the major news media, that a number of major corporations and banks, including The Irving Trust Company, had allegedly capitulated to the Arab Boycott, the Officers and members of the Board of Directors of the Jewish Federation Council of Greater Los Angeles have been questioned by many in our community regarding our financial relationship with your bank.

"The Jewish Federation Council of Greater Los Angeles, which includes in its membership more than 500 affiliated organizations, (religious, educational, philanthropic, welfare and human relations agencies), has the primary responsibility in this community for raising and making funds available for local, national, and overseas humanitarian services. The Jewish Federation Council has the responsibility of administering these funds in such a way as to be sure they serve the best interest of the Jewish community of Greater Los Angeles.

"In view of this responsibility, and the fact that the Jewish Federation Council has been purchasing your Bankers Acceptances and Certificates of Deposit, we respectfully request that you inform us of your policy, or any agreements or understandings with individuals, organizations, or countries: 1) to withhold in any way, or refrain from commercial or trade relations with the State of Israel, as a result of pressure from Arab countries or from businesses related to the Arab countries; 2) to honor letters of credit only when seller furnishes proof that seller is not on Arab Boycott blacklist; and 3) to open branch offices or any other banking affiliation in Israel.

"In view of the charges made in the media, and the questions they have engendered, our Board of Directors has instructed us to request this information from you. Your response will make it possible for us to give our Board the full facts of the situation."

Reply by Joseph A. Rice for Irving Trust, May 20, 1975:

"In response to your letter of May 8, I would like to assure you that this bank is opposed to any black list or restrictive trade practices, and any suggestions that we have 'capitulated' to any form of boycott against Israel or anyone else is wholly unfounded. Moreover, I would hope that the Jewish Federation Council will continue to purchase our acceptances and certificates of deposit as long as it serves your purposes to do so.

**We are happy with
our investment in Israel.**

**We are proud of the
people who work with
us there.**

**We plan to continue
working with them.**

I have just returned from an out-of-state trip and was surprised to hear there had been a newspaper article about "First Pennsylvania retreating from Israel."

Nothing could be farther from the truth. But rather than my telling you about First Pennsylvania's relations with Israel, I believe you'll agree that our actions speak much more forcibly than an anonymous quote in a newspaper article.

The fact is that we have increased our investment in FIBI, the Israeli Bank, on three separate occasions in 1974. This increase totalled 50%. Our investment now exceeds \$13,000,000 and will be increased again, within a year.

We have excellent relations with our Israeli subsidiary, in fact, the president of FIBI attended a conference of our top officials within the last month. And First Pennsylvania's President is scheduled to visit Israel this spring.

I would like to repeat in the strongest way that I can: We are happy with our investment in Israel. We are proud of the people who work with us there. We plan to continue working with them.



John R. Bunting
Chairman of the Board, First Pennsylvania Corporation



FIRST PENNSYLVANIA CORPORATION

John R. Bunting

"With respect to the particular questions you have raised:

- "1. It is not our policy, nor do we have any agreements or understandings with individuals, organizations or countries, to withhold in any way or refrain from commercial or trade relations with the State of Israel.
- "2. As regards letters of credit, the function which an international bank has is simply to receive instructions from a foreign correspondent bank or firm to make payments against certain documents, and its duties are limited to making such payments when the documents called for are presented. The bank does not suggest that any particular document or any particular provision be part of the export agreement - it merely receives instructions regarding payments and carries them out. This practice is, I believe, followed by every bank in the United States involved in the international letter of credit business.
- "3. We have no policy, agreement or understanding that would preclude us from establishing a branch office or any other banking affiliation in Israel. I might add that any decision to establish a branch or other facility, whether in Israel or any other country, would be based on a careful consideration of economic feasibility."

Following are excerpts from letters responding to inquiries by the American Jewish Committee:

From Republic Steel Corporation

"... Republic Steel was one of the companies named on the blacklist by certain Arab countries which was made public some months ago. Previously, we had been aware that such a blacklist existed and that our company name was on it, but we were not informed as to why this action was taken. This blacklist included also six Republic subsidiaries and affiliated companies and three Republic trademarks, none of which, to our knowledge, have ever had any connection with business in Arab countries. Upon inquiry to the Arab boycott office we were advised that Republic and its affiliated companies had been blacklisted as a result of Republic's investment in an Israeli manufacturing firm which went out of business several years ago.

"We concur wholeheartedly in your statement that the American business community should demonstrate unswerving adherence to the concept of fairness and equity that has always been the traditional way of doing business in this country.

"It is, and shall continue to be, our company's policy that race, religion or national origin have no place in our business decisions. Pressures such as a blacklist tries to impose are certainly not going to cause us to sway from such policies."

F. Statements by Universities

The following are excerpts from replies to inquiries by the American Jewish Committee.

By Princeton University:

"Our policy is not to enter into any agreement involving any government or its agencies if doing so would require the University to discriminate against any member of the University on grounds of race, religion, sex, or political belief.

"I might add that the same policy applies to agreements with non-governmental organizations as well. Moreover, we would not seek funds for the University under conditions which would violate our independence with respect to educational or scholarly matters, institutional policy, or personnel decisions."

By University of Denver:

"I can think of no circumstance under which the University of Denver would accept assignments in which discriminatory hiring practices were a condition.

"We have also alerted the Director of the University's Affirmative Action Office, which is likely to be aware of such circumstances, and feel that the situation is therefore unlikely to be a problem here."

By Villanova University:

"Villanova University has a rather large foreign student contingent that it is not averse to expanding in these times of diminishing applications. Frankly, the danger that you mention never crossed my mind. Please be assured that, now aware of the possibility, we shall be extremely cautious in entering into contracts involving foreign students, lest inadvertently some discriminatory practice be introduced."

By Syracuse University:

"For 105 years, Syracuse University has had a clear, open record in regard to discrimination. I cannot see any departure from that policy.

"Officials of Syracuse University have said that no Arab petrodollars would be accepted for research projects if Jewish faculty and staff members at Syracuse University were excluded from the projects."

G. Resolutions by Chambers of Commerce

1. Greater Philadelphia Chamber of Commerce

American business has always welcomed foreign investments. America is an open society which does not put unreasonable restrictions on foreign investment. This is to its credit and to its benefit.

Likewise, American businessmen buy and sell, trade, invest and lend all over the world. We offer our industrial products, our skills and our know-how, our financial capital and investment facilities on the open market. We stand ready to be judged by the quality of our goods and services, the ability of our staffs and the dependability of our contracts.

We are not prepared to be judged on religious tests applied to our directors, our management, our employees, our customers or our clients, either here or abroad.

The Chamber of Commerce of Greater Philadelphia calls on President Ford and the Congress to consider appropriate legislation which will protect all Americans from discrimination and unfair competitive practices resulting from conditions imposed by foreign investors.

2. Metropolitan Milwaukee Association of Commerce (excerpts)

Recent disclosures in the press and in Congress indicate that Arab governments have undertaken to boycott United States industrial, commercial and financial firms owned or managed by persons of the Jewish faith.

In addition, there is evidence that this boycott is being extended to firms which have done business with the government of Israel or companies in Israel, and to pressuring firms doing business with Arabian concerns to exclude Jewish persons from their employ.

This type of discrimination certainly has no proper place in the practice of free commerce in America and should have no place in international business, either. Free trade and foreign investment have been encouraged by the United States government, as they should be. Restrictive practices on the basis of religious or ethnic considerations are inimical to free trade and detrimental to the long-term best interests of this country.

The Board of Directors of the Metropolitan Milwaukee Association of Commerce, therefore, reiterates its support of the principle of free trade and urges its members to oppose, in any way they can, such a boycott based upon ethnic or religious prejudice.

H. Statement of National Association
of Human Rights Workers

(The following statement was released by NAHRW and copies sent to the governors of the 50 states asking each to "publicly call upon your anti-discrimination agency, and the agency which governs commerce, to be fully cognizant of their responsibilities under American law, and aware of the ramifications of a threatened boycott.")

"A serious challenge is facing civil rights enforcement agencies throughout the United States. American-owned businesses are being not-so-subtly threatened with loss of business if they deal with, or hire, those of the Jewish faith. This challenges not only the strengths of American business but also the strength of American laws prohibiting discrimination because of race, color, creed, religion, national origin, ancestry or sex.

"For many years American Jews have been prominent in the struggle for civil rights, for the passage of laws prohibiting discrimination, and for the establishment of human rights agencies to enforce the laws. Jewish names and Jewish agencies are evident throughout the history of this struggle.

"The National Association of Human Rights Workers, formed in 1946, owes its life to that struggle, its history and tradition are born of that struggle and its membership extends throughout the U.S., and into Canada and Puerto Rico.

"NAHRW views the threat of boycott with dismay. It looks upon this attempt to pressure Americans into accepting the political and economic mores of foreign nationals, whose avowed, publicly stated goal is the alienation and isolation, politically, economically and socially, the State of Israel, and being carried over to affect American citizens, as antithetical to the principles upon which NAHRW and anti-discrimination laws are based.

"Implicit in the threat of boycott is the seed of outright discrimination against Jews. But, such discrimination is intolerable in this country. NAHRW's position is consistent, as illustrated by its call to American businesses to review their policies in Rhodesia and South Africa, which countries continue to restrict, officially, Blacks and persons of color. We are categorically opposed to all such discrimination.

"NAHRW has called upon its membership, and every human rights agency in the United States and Puerto Rico, to stand firm in the enforcement of anti-discrimination laws, and calls as well upon American business to take a firm stand against being party to violation of American law."