

Mohnfeld, Jochen H.

Article — Digitized Version

Economic and political risks of world oil markets

Intereconomics

Suggested Citation: Mohnfeld, Jochen H. (1982) : Economic and political risks of world oil markets, Intereconomics, ISSN 0020-5346, Verlag Weltarchiv, Hamburg, Vol. 17, Iss. 1, pp. 43-48, <https://doi.org/10.1007/BF02925921>

This Version is available at:

<https://hdl.handle.net/10419/139786>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

OIL

Economic and Political Risks of World Oil Markets

by Jochen H. Mohnfeld, Paris*

The present easing on the world oil market could foster the illusion that energy problems are now resolved. During 1981 various oil-producing countries (OPEC and non-OPEC alike) found they had to cut their prices. OPEC production has had to be reduced by about one-third from the 1979 level of 31 mbd¹. Last September's OPEC output of 20 mbd was the lowest monthly figure for 12 years and has by year-end 1981 recovered to just 22 mbd. "The OPEC is no longer able to dictate prices; there is more oil than the market can take." These are typical recent comments, but they reflect too short-term and superficial a view. The real issue is the question whether energy supplies are secure in the *long term*, too, and whether energy itself presents a danger for general economic and political developments.

Reference to the risks attached to the future energy supply situation must not be interpreted as pessimism but as realism. The events of the years 1974 to 1978 have taught that energy policy quickly loses momentum in a post-crisis period and many business and private energy-users hesitate to undertake costly investment when they see oil prices falling in real or even nominal terms. This danger grows the longer the lull continues. At the moment there are good reasons to expect that the oil market will remain slack for a number of years. Although it is too early to predict a repetition of the behaviour pattern that followed the first oil crisis, there are signs of a growing dilatory attitude on the energy front. The US, for example, is about to disband its Department of Energy, which was set up only in 1977. In some countries, government programmes for long-term energy research projects and the rationalisation of energy have been cancelled or cut back. (Coal liquefaction projects in the US and in Germany², for example, have been drastically reduced.) In most cases, the trimming of public spending on energy is more a question of budget constraints than a matter of judgement, but it does highlight the danger that whenever tension on the world oil markets lessens, long-term energy objectives lose priority to other competing objectives.

These remarks should not raise the false impression that anyone involved in international energy policy is eager to have the crises back with us again. On the contrary, the world economy badly needs this breathing space. The task of the IEA³ and other organisations with an energy policy mandate is to contribute to making good use of this respite. Energy policy should once and for all try to break out of the excessively cyclical development it has been going through during the last eight years. The energy markets must not contribute to

¹ Million barrels per day – abbreviated in the text as mbd. 1 barrel = 159 litres: approximate conversion factor: 1 mbd (for one year) = 50 million tonnes oil equivalent (toe) p.a.; in the energy balances of the IEA Member Countries, an average conversion of 1 mbd = 49.2 mtoe p. a. was taken; 1 mtoe = 1.43 mtce = 10 Petacalories.

² Cf. D. Schmitt: Perspektiven der Kohleverflüssigung und Kohleverflüssigung (Perspectives for coal gasification and liquefaction), in: WIRTSCHAFTSDIENST, No. 11, 1981, p. 538 ff.

³ The International Energy Agency is an autonomous body established in 1974 within the framework of the OECD as a reaction to the first oil crisis. It now numbers 21 of the OECD's Member countries (Australia, Austria, Belgium, Canada, Denmark, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States), i. e. virtually all the Western industrialised nations with the exception of France. It was founded in order to foster energy policy co-operation between these countries, and has the following basic aims:

- a) The uniform distribution of available oil supplies in the event of a disruption in oil supplies, by means of a special crisis mechanism, and the protection of the Member Countries against the risk of a future interruption of supplies, by maintaining stocks.
- b) The reduction of oil dependence by improving the energy supply and demand structure within the framework of a programme for long-term co-operation.
- c) The promotion of co-operation with the oil-producing countries and other oil-consuming countries.

* International Energy Agency. – This article reflects the author's personal views only.

destabilizing the world economy. Instead, they should become stabilizing factors through long-term planning and implementation of energy investment projects. This calls for long-range time and planning horizons well beyond the end of the next half-period of the business cycle and beyond the next elections.

Although it was possible, after the first oil crisis, to contend that the price shock was a one-time incident in economic history, that belief was badly shaken by the second price shock in 1979/80. Whereas structural change has always persisted in the energy economy, one consistent feature – at least prior to 1973 – was the relatively cheap price of oil and gas. However, 1973 marked the beginning of the age of increasingly costly energy. The realisation that this change has taken place is gradually sinking in, but there is much convincing still to be done before all investment and consumption decision-making takes it into account.

In its cyclical changes, the energy market is often too short-sighted. Short-term price indicators are not reliable guidelines for long-term investment decisions. That can be said without the least implication of a preference for the planned over the market economy system. The Government must be ready to intervene to correct or support the market economy's management of energy supplies, if necessary, so as to smooth out or accelerate the adjustment process. This is the principle on which all governments in the Western industrialised countries – including Germany – have so far operated.

Changes Since 1973

This introduction is in no way intended to play down what has been achieved since 1973. On the contrary, the figures point to major successes in the structural change of minimising the role of oil ("away from oil") in energy production and consumption:

- Energy consumption per unit of real gross national product in the OECD countries fell on average by 12 % between 1973 and 1980. During the same period, total energy consumption increased at the very low rate of 0.5 % per year, the average annual increase in GNP being 2.5 %;
- In contrast to total energy consumption, which was still steadily climbing, oil consumption fell in absolute terms (from about 1.9 to about 1.7 billion tonnes, i. e. 0.8 % per year) and oil imports fell even more rapidly than did total oil consumption (from 1.32 to 1.16 billion tonnes, or 1.9 % per year);
- As a result, oil as a percentage of primary energy consumption fell from 54 to 49 % for the OECD area as

a whole. The figures for Germany are similar (56 % in 1973, 48 % in 1980);

- While in 1973 for the OECD on average it took 0.48 tons of oil to produce \$ 1,000 GNP (at constant prices), in 1980 only 0.39 tons were needed (in Germany the corresponding figures are 0.36 tons and 0.26 tons); the efficiency gain for OECD was thus 19 % and for Germany 28 % in 7 years;

- Following a decrease of 8 % in 1980, OECD countries further reduced their oil consumption by 6 % in 1981, although GNP was still rising even if very slowly; decline in oil demand will probably continue in 1982 though at the much lower rate of about 1 %, assuming a – still weak – OECD GNP growth in 1982 of 1.25 %.

However, these quite dramatic decreases in oil consumption in the last two years are not simply the result of more economic use of energy or recourse to alternative sources of energy. There is another, less desirable, cause as well – namely, slow economic growth. It is impossible to distinguish cyclical from structural effects with scientific accuracy. According to preliminary estimates each factor is responsible for about half of the reduction in oil consumption. This means that if economic activity picks up again then oil consumption will increase at a faster rate, too. It should also be borne in mind that much of what appears to be a structural reduction in oil demand is in part caused by a *change in behaviour* (e.g., lowering heating temperatures, driving less), and this is reversible if consumers were to anticipate a fall in real oil prices over a number of years. Only that part of structural change which is *based on investment* can be relied upon to endure. A simple extrapolation of the dramatic success in the last two years is thus not possible. The most profitable energy-saving investments are being made first, and thus decreasing returns are to be expected in the future.

This statistical picture shows that oil is still the backbone of the industrialised countries' energy supply systems and that they have in no way reached a balanced structure. In other words, the structural change so far achieved, however considerable it may be in itself, offers no guarantee that future oil price shocks, and with them new disruptions of the world economy, can be avoided.

As a production factor, energy was elevated to a new economic order of magnitude by the very steep increase in the cost of crude oil over the last eight years, which in turn produced an increase in the cost of competing energy sources. The adverse effects of the first and then

the second oil price shock were so great that the implementation of a long-term active energy policy has become an essential element to minimise the danger of further recessions of the world economy caused by continuing oil price rises.

The two adjustments that the world economy has had to make to higher oil prices during the last eight years were extremely painful because the increases came in big jumps which triggered off economic recessions causing great losses in growth and employment. In addition, the pace of inflation was accelerated. Lastly, the disequilibrium in foreign trade further narrowed the room for manoeuvre in economic policy.

In 1977/78, just when the world economy had barely recovered from the impact of the first price shock, it experienced yet another series of negative factors. The second oil price shock of 1979/80 was even larger in absolute terms than the first one. (There was an increase of \$22 – from \$13 to \$35 – per barrel as compared to the \$7.50 increase from \$2.50 to \$10 per barrel in 1973/74.) Even taking dollar inflation into account, the economic consequences of the last price rises are at least as important as those of 1973/74. It is difficult to quantify the negative impact on the economy of the 1979/80 price rise because many factors are

involved. The OECD Secretariat attempted the following rough estimates:

□ The immediate effect of an oil price rise is a redistribution of real income between oil producers and oil importers, since more goods and services have to be given away in exchange for the same quantity of oil. Through these terms of trade effects the OECD countries have lost, in both 1980 and 1981, almost 2 % of their real income.

□ The oil price rises also resulted in a macro-economic demand deficit. The oil exporters as a whole do not spend the entire extra income on imports from the industrialised countries. The recycling of the oil income surplus into the Western banking system could not fully compensate the demand deficit. The private and public sectors were not able to borrow as much so as to compensate the macro-economic demand drop. On balance, there remained a deflationary effect which is estimated by the OECD Secretariat at 3 % of GNP in 1980 and 4 % in 1981. This effect, of course, will decrease in the future.

□ The chain reaction goes even further. Economic policy measures were implemented to cope with the inflation and balance-of-payment deficits induced by the

PUBLICATIONS OF THE HWWA-INSTITUT FÜR WIRTSCHAFTSFORSCHUNG-HAMBURG

NEW PUBLICATION

Hans-Harald Schumacher, Heinz-Dietrich Ortlieb (Eds.)

SOZIO-ÖKONOMISCHE ASPEKTE VON TROPENKRANKHEITEN IN AFRIKA

(Socio-economic Aspects of Tropical Diseases in Africa)

Tropical diseases represent a threat to health and working capacity whose influence on the development opportunities of African countries is considerable. The Africa Council, an association of academics and businessmen familiar with Africa, has conducted a public symposium in Hamburg once a year since 1976. The subject of the meeting in 1981 was "Socio-economic aspects of tropical diseases in Africa". The individual papers on this topic of importance for development policy have now been made available to the public in this book. (In German.)

Large octavo, 145 pages, 1981, price paperbound DM 19,50

ISBN 3-87895-215-5

V E R L A G W E L T A R C H I V G M B H - H A M B U R G

oil price rises, but these same measures are also resulting in constricting economic activity. The necessary countermeasures are, in conjunction with high public budget deficits, limiting the scope for stimulating the economy. These effects are estimated at 0.25 % of OECD GNP in 1980 and almost 2 % in 1981.

These GNP losses add up to 5 % of OECD GNP in 1980 and a further 8 % in 1981, compared to an economic growth which otherwise would have been possible. In absolute terms, this is \$ 450 billion in 1980 and a further \$ 700 billion in 1981 – corresponding to about one-and-a-half times the real GNP of Germany in 1981. The magnitude of these negative impacts stresses the overriding importance of securing a smooth development of world oil markets in the future.

The following figures illustrate the extent to which economic stability is determined by energy as a cost factor:

- In 1980, the net bill for energy imports into Germany had risen to DM 65 billion, equivalent to 20 % of German export earnings; in 1972, only 6 % of export earnings was required to pay for Germany's energy imports.
- About half of the 1980 DM 30 billion balance-of-payments deficit is due to the oil price rise. Together with other general economic factors, this deficit has contributed to the devaluation of the D-Mark against the dollar; the trend in exchange rates, just from January until end-December, 1981, has increased the price of crude by about 15 %.

Because of their economic interdependence, all countries are affected by the shocks on the world energy markets. This truth is slowly sinking in, and the pragmatically-minded oil-producing and exporting countries now realise that in their price policy they have turned the screw too hard since the beginning of 1979.

Destabilizing Factors

Uncertainty about future energy supplies has become an important feature of economic life. However necessary it is to give warning of the risks and dangers – precisely so that they should not be allowed to materialise – it is just as necessary to signpost a viable path towards ensuring uninterrupted supplies over the next few decades and thus restore confidence that energy will not become the bottleneck of economic development.

Confidence in the ability to solve the energy problem has become a major psychological factor in the propensity to invest. Instead of the pessimism observed during the phase of leap-frogging oil price rises in 1979

and 1980, there is evidence of greater confidence in the energy future. It is becoming clear that the second oil price shock generated a wave of investment, although its height is governed by the direction of the prevailing "wind" in energy policy. The adjustment of the economy and private households to higher energy prices can be achieved only by restructuring the country's capital stock. This is giving technological progress new momentum. It is possible to increase energy productivity by investment – in other words, to enlarge again the scope for growth.

But it is not yet everywhere accepted that economic growth can be built up only on the basis of secure energy supplies, and not on nebulous schemes to save energy and create renewable energy sources. What is questionable is not the debate on moratoria or zero options for nuclear or other forms of energy as such, but the refusal to consider the economic and social implications of the deliberate curtailing of economic growth potential by reducing the supply of energy. (This is one of the weak points of the latest report of the German Commission of Enquiry⁴.)

The interaction between energy and general economic activity, however, also operates in the other direction. One has to be concerned that if economic momentum falls off, it will just not be possible to finance the extraordinarily high investment necessary to develop alternative sources of energy and convert the production base to less energy-intensive processes. Structural change is easier when economic growth is strong. If economic growth is weak, there could be an unwanted downward spiral effect which would really only result in energy demand being pulled down by reduced employment whilst the necessary rapid adjustment process would fail to take place.

Political Dimensions

Since the state of the economy is an integral part of the political scene, not only at the national level but also and more importantly at the international level, it is evident that energy's mounting importance in the general economy will attract increasing political attention.

At the National Level. It is easy to see that further oil crises would lead to the lasting economic destabilization of the Western democracies. Since economic and social developments are closely intertwined, general political stability would inevitably also suffer. From this general political viewpoint, bringing energy problems under

⁴ Bericht der Enquêtekommission, "Zukünftige Kernenergie-Politik".

control is an urgent necessity – even a matter of survival – for each national government.

At the International Level. If the Western industrialised countries' dependence on oil imports continues and the supply tends to become more scarce, this will automatically lead to an increasing political dependence, particularly if oil-dependence is concentrated in a few countries. The role of Saudi Arabia as a price-moderating force in OPEC, while in itself very desirable, should also be looked at from this standpoint. This policy, no doubt right in the long term, has led to a situation in which Saudi Arabia has built up its share of aggregate OPEC supplies to about 45 % compared with about 28 % in 1978 and only 18 % in 1973. In the oil-importers' view, this has unquestionably concentrated the risk. In general, there is no point in denying the foreign policy dimension of the world oil markets on the grounds of the importer's preference for free world trade if the exporter sees and utilises the political dimension. The only effective long-term countermeasure against undesirable political dependence and the danger of pressure and blackmail is quite simple: reducing the use of those sources of energy most likely to cause shortages, thereby reducing imports.

Since practically all the industrialised countries depend on energy imports, every deterioration in international relations – no matter between whom or for what reason – is always a potential external threat over which the importer has little influence. The war between Iran and Iraq is a good illustration of such a threat. Other pressure points in international politics affecting energy supplies are:

- ☐ the use of oil as a political weapon by the producing and exporting countries, and a trend towards bilateral deals;
- ☐ the political competition among oil-consumer countries;
- ☐ the Soviet Union's mounting interest in the Persian/Arabian Gulf;
- ☐ the new external dependence implicit in importing increasing volumes of energy from the Soviet Union;
- ☐ the economic and social problems of oil-importing developing countries which were further aggravated by the very large increases in oil prices since 1979. It can hardly be said that the industrialised nations have caused either the deterioration of these countries' internal economic situations, or the increase in their balance-of-payments deficits – which are now nearly impossible to finance. But it is to the industrialised

countries that the main appeal for increased aid is addressed at a time when their own economies are also suffering from oil price rises. Clearly, oil is the explosive that could considerably intensify the North-South conflict.

The international dimension of the energy supply question has been enlarged, particularly in the last decade; it is therefore vital to find a global answer to these global problems. The starting point, naturally, is the effort made by each country, but this must be doomed to failure if all concerned do not pull together. This includes not only the Western industrialised and the oil-producing countries but also the non-oil developing countries, the COMECON countries, and China.

It would be wrong, however, just to point to the dangers of the internationalisation of the energy markets. On the contrary, it can also be maintained that the inevitable expansion of world trade in energy raw materials must contribute to integration because every participant, importer or exporter, in the world energy market must realise that he cannot disturb the sensitive balance without harming himself. Since the COMECON countries as a whole have been, up to now, largely self-sufficient in energy, the decisions to step up Russian gas imports into Western Europe should be looked at again from this standpoint.

Long-term Structural Change

These economic and political risks having been discussed, the question must be examined of how to achieve a *smooth transition* to a less oil-dependent economy. The discussion can be quite brief since the answers are not all new and the views of the IEA are also well known. The single secure alternative – attainable only in the long term – to excessive dependence on oil, and to all the risks attaching to that dependence, is to diversify the supply of energy and improve the efficiency of its utilisation. Only on those conditions will it be possible to meet energy requirements up to the end of this century without grave economic repercussions. The main point about the energy problem is that failure to solve it will not be attributable to technical difficulties. Everything necessary for a solution is known. What is lacking are not the plans for overcoming potential bottlenecks but the implementation of those plans. The obstacles are of an economic, social, and political nature, although that does not make them any the less difficult to surmount.

Forecasts for the next one or two decades are affected by many unknowns. The IEA Secretariat has developed a reference scenario for the years 1990 and

2000 based both on detailed information provided by Member countries and on its own analysis. The scenario is not a prediction of what is likely to happen, but rather an indication of what can be done, on a practical basis, to reduce dependence on oil. In this sense, it provides a consistent framework for identifying and discussing energy policy issues. The table presents the key figures of this reference scenario.

The IEA analysis⁵ suggests that even with economic recovery over the next few years and sustained economic growth at about 3.2 % per year thereafter, it is possible to limit IEA net oil imports in 1990 to roughly current levels of 19-20 mbd, and reduce them further to about 15 mbd by the end of the century.

Oil consumption as a share of total energy consumption, which presently still averages nearly 50 % for the industrialised countries, could then be reduced to 25-30 %. Only the achievement of these

⁵ This analysis ("World Energy Outlook II") will shortly be concluded and then published.

IEA Reference Scenario
(mtoe)

	1979	Reference Case 1990	2000
Total Primary Energy	3,612	4,236	5,100
Non-Oil Energy Consumption	1,794	2,666	3,780
Oil Consumption	1,818	1,570	1,320
of which: Net Oil Imports ¹	1,206	974	730
Domestic Energy Production	2,486	3,142	4,205
Coal	727	1,100	1,770
Oil	707	678	680
Gas	695	713	750
Nuclear	123	336	555
Hydro	232	285	350
Other	2	30	100
Net Non-Oil Imports			
Coal	11	60	40
Gas	30	142	215
Total Final Consumption	2,617	2,918	3,369
Industry (incl. non-energy use)	1,040	1,270	1,667
Transport	737	709	680
Residential/Commercial	840	939	1,022
Oil Use			
Industry (incl. non-energy use)	475	375	420
Transport	732	707	670
Residential/Commercial	325	265	135
Electricity Generation	215	136	50
Memorandum Items			
Net Oil Imports (mbd) ¹	24.5	19.8	14.8
Oil Consumption as % TPE	50.3	37.1	25.9
TPE/GDP Ratio (1973 = 100)	91.2	77.7	68.3
Oil/GDP Ratio (1973 = 100)	88.4	55.4	34.0
Electricity Consumption (mtoe)	358	494	655
Electricity Consumption as % TPE	13.6	16.9	19.7
Share of Oil in Total Sectoral Energy Use (%)			
Industry	45.6	29.5	25.2
Residential/Commercial	38.7	28.2	19.8
Electricity Generation ²	18.6	8.6	2.4

¹ Includes marine bunkers. Conversion at 49.2 mtoe/year = 1 mbd.

² Measured on the basis of fuel inputs.

Source: IEA Secretariat estimates.

targets offers any guarantee for stable economic development, free from external disruptions. Simply to continue with the present trend, however, would not produce this result. If all the estimates to 1990 submitted by the IEA Member countries are added together, the inevitable conclusion is that this amount will not be available on the world oil market. The potential oil deficit in 1990 on a "business-as-usual" basis will be about 6 mbd (300 million tonnes). This big gap is a measure of the adjustment pressure facing the energy economy by the end of this decade. Admittedly, the problem is already made considerably less acute by the weak economic growth in 1980 and 1981. The forecasts made by Member countries over a year ago in most cases overestimated future economic growth.

This link between energy and economic growth raises a fundamental question: should we, in an attempt to rid the world oil market of the tension which could arise again by the end of the 1980s, consider the possibility of reducing energy consumption by deliberately accepting slower economic growth? Put another way, is it right to assume that diminished economic activity will solve the energy problem of itself? It appears that the main purpose of energy policy is first to assess all possible conflicts of objectives and then to secure the energy supplies necessary for the economic growth that is desired at overall policy level. To thwart economic growth by limiting the energy supply would be to turn the aims of energy policy upside down. Consequently, the adjustment must come from a more productive use of energy and from a shift of demand towards those energy sources which are less scarce than oil. The unacceptable solution via economic growth would also be far more expensive, from a general economic standpoint, than the investment necessary to restructure the energy economy. To obviate long-term imbalances, the energy future of the industrialised world must be aimed at the following targets which are also implied in the reference scenario:

- ☐ a growth in coal production and use, of the order of 150 % over the next twenty years;
- ☐ an increase in nuclear power of 170 % over the next 10 years, and a further 65 % in the 1990s;
- ☐ a stabilisation or maybe even some increase in IEA oil and gas production, with new finds, enhanced recovery, and some synthetic production making up for declines in other fields; and
- ☐ considerably greater energy conservation efforts so that the growth in energy consumption remains consistently below the economic growth rate.