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The Petroleum Industries of the People's
Republic of China and Indonesia: An Analysis
of the Bargaining Relationship with Japan

by

Fay Rebecca Saul, B.A.

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A Thesis submitted to the Faculty of
Graduate Studies and Research in partial
fulfilment of the requirements for the degree of
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The Norman Paterson School of International Affairs
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ABSTRACT

Japan is a highly industrialized country which is in the unenviable position of being resource-poor. In petroleum, Japan must import approximately 100 percent of her requirements. Consequently, the search for security of supplies became one of the over-riding concerns of the Japanese government and business leaders alike. China and Indonesia, which are both geographically close to Japan, have complementary economies in relation to Japan, and are both oil producers. Hence, they were logical choices in Japan's search for oil.

This thesis analyzes the Japan-China and Japan-Indonesia petroleum bargaining relationships to determine whether China and Indonesia are interdependent, or independent, situations within a worldwide context of petroleum interdependence. A comparison is made of the two case studies, which highlights the ramifications of their respective development policies through their petroleum industry policies.

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INTRODUCTION

In recent years there has been a proliferation of literature published praising the Chinese developmental model and self-reliance especially in its technological relations with foreign powers. As I had a personal interest in China to begin with, I decided to examine in detail China's relations with one foreign country in one specific industry. My goal was to determine whether in fact all the credit given to China was deserved, whether China had been able to extract better concessions than other third world countries in its negotiations with foreigners.

In the course of my research on the China-Japan petroleum relationship, it became evident that only through comparison with another third world country would the uniqueness of the Chinese case be established. Hence I chose Indonesia as it provides an excellent contrast. Both China and Indonesia are geographically close to Japan, they are both developing countries, they export oil to Japan and import Japanese technology, plants and equipment. Both case studies are presented in this thesis, however China remains the primary focus.

In order to put the China-Japan and Indonesia-Japan petroleum relations in context, Chapter I furnishes

background material on the petroleum industry itself; points out the differences in priorities of corporate and national economic systems; shows the global interdependence that provides the basis for petroleum transactions; and lastly gives the theory and framework for analyzing bargaining relationships. Chapter II considers the Japanese interests in petroleum relations with producing countries, while in Chapters III and IV the case studies of Indonesia and China are respectively put forward.

This is followed in Chapter V with a comparison of the two cases bringing to light the ramifications of their differing developmental strategies.

CHAPTER I

OIL, BARGAINING AND INTERDEPENDENCE

In the development of its resource base, the less-developed country (LDC) usually had to look to foreign companies to provide the inputs that it lacked. The LDC itself had the petroleum, the labour force, and equally important, the ability to make agreements that would be attractive to the foreign investor. Most times the LDC needed some or all of the following from the foreign firms -- skills, these being technological and managerial; finance; experience; and access to markets. Even nationalization of the industry did not mean that all these inputs were available locally, and in fact, in most cases, reliance to varying extents on foreign companies was necessary.

At the turn of the century, the United States and Russia together dominated the world petroleum industry, producing more than ninety percent of the world's oil.¹ This is not the case today as the following chart and table indicate. The greater proportion of oil reserves and production are found in the LDCs. The developed countries (DCs) constituted the principal world markets for oil, and as such, they were the prime initiators in the global search for and production of oil. The

FIGURE 1

WORLD OIL SUPPLY AND DEMAND 1975

TOTAL DISCOVERED OIL

TABLE 1-1

WORLD PROVEN OIL RESERVES JAN. 1st, 1975					
(IN BILLIONS OF BARRELS)					
OPEC COUNTRIES		REST OF NON-COMMUNIST WORLD		COMMUNIST WORLD	
SAUDI ARABIA	73.1	UNITED STATES	35.0	RUSSIA	83.7
KUWAIT	81.5	UNITED KINGDOM	15.7	CHINA (Mainland)	25.0
IRAN	68.0	MEXICO	13.8	OTHERS	3.0
IRAQ	35.0	CANADA	9.4	TOTAL	117
UNITED ARAB EMIRATES	34.0	NORWAY	7.3		
LIBYA	28.6	OMAN	1.0		
NIGERIA	20.9	AUSTRALIA	2.3		
INDONESIA	15.0	OTHERS	30.0		
VENEZUELA	15.0	TOTAL	119.3		
ALGERIA	17.7				
QATAR	6.0				
EQUADOR	2.5				
GABON	1.7				
TOTAL	485.0				
					WORLD TOTAL 117

* OPEC's proven oil reserves have risen every year since records were kept, and have more than doubled since 1960. Some experts believe that the real total could be four times as great.

† United Arab Emirates is a federation of seven small Arab states: Abu Dhabi, Dubai, Sharjah, Ras Al Khaimah, Fujairah, Ajman, Umm Al Quwain.

(Reserve figures from International Petroleum Encyclopedia. Includes 17.3 billion barrels in Neutral Zone shared equally by Saudi Arabia and Kuwait.)

Source: cited in Talib's OPEC Trade Directory
(New York: Amanco Enterprises Ltd., 1976).

international oil firms of the DCs acquired a monopoly of the skills and techniques needed to exploit this resource. Although the capital and human resource requirements of entry² into the oil industry were reduced by the increased availability on a fee or contract basis of tankers; specialized geological and geophysical services; and for contract drilling and engineering services;³ the specialists did not bring with them the overall industrial experience, organization or markets. This type of package could only be obtained from the oil transnational corporations (TNCs) or more recently from government agencies with similar experience.⁴

The investment capital required to exploit petroleum resources is huge and cannot be spread over a long period of time, it is needed in large lump sums. Even if the LDC has the necessary foreign exchange available, the returns on the money cannot be expected for an eight to ten year period and consequently there is fear of tying up investment capital. This, however, is only one side of the coin. Viewed in terms of the social rate of return on investment, oil exploration has attractive features for economic development. It is unique by virtue of the fact that once oil is discovered, the real cost of production is often relatively very low, equaling perhaps ten percent of the total value of output. Accordingly, ninety percent of the value of the output is obtained without requiring

current resources which might be utilized elsewhere in the economy for other potential investments.⁵ Supplementary to this, although oil exploration is extremely costly, the importation of crude oil is a complete foreign exchange drain, while at least a part of the capital cost of exploration can be met by indigenous sources. Hence if foreign exchange is valued above the official exchange rate, as is the case in many LDCs, the rate of return would be even higher than is at first apparent.⁶ An additional consideration regarding capital is the stance of the international loan institutions. Their position has been that since there is capital available from private sources, they should channel their own funds for projects in which such capital is not forthcoming.⁷ Most important of all is the element of risk. One cannot determine a priori that a given area or well will produce oil. Consequently the enormous investment if made by the LDC itself could come to nought. The foreign oil companies, on the other hand, have easy access to the funds required, either through the business organization itself or from international financial markets. The transnationals also spread their risks by exploration and development in many countries at the same time. The preceding statements however ignore the fact that oil exploration can be broken up into a number of stages and therefore, does not necessarily necessitate a huge initial capital outlay in order to estimate the

possibilities of oil deposits. The scientific survey stage of oil exploration is only one-twentyfifth of the cost of exploration⁸ and could serve as an important indicator for a government desirous of exploiting its own natural resources but fearful of the great capital expenditure required. Therefore, the risk in oil exploration is not "immeasurable" but can be calculated within certain ranges. Also, the risk is not fixed, but is susceptible to marked reduction through relatively inexpensive preliminary investigation.⁹

Were the LDC successful in surveying, exploring and producing oil, there would still be the problem of markets. The international firms are vertically integrated and are involved in each step of the process from surveying to manufacturing finished products. They have vast organizations with distribution affiliates in many countries. The LDC does not have such a network and therefore needs the TNCs to market its oil. Although government-to-government agreements on petroleum have slightly eroded TNC strength in this area, the petrotransnationals still control seventy-eighty percent of the global chain in petroleum,¹⁰ and thus they are still dealing from a position of strength in this area.

Therefore, in order to understand the complexities of the international oil arena one must look at the petroleum industry itself; the corporate economic system in relation to the national economy; global interdependence

9

and oil; and bargaining dynamics. From this a theoretical structure and framework will be developed to test the hypotheses contained in this paper.

The Petroleum Industry

In the year 1900 there was one petro-TNC dominating the oil industry, that was Standard Oil of New Jersey (now Exxon).¹¹ By 1914 with the merger of Royal Dutch and Shell there were two oil company giants, and these two have remained the largest companies in the world oil industry.¹² By 1928, Anglo-Persian, the predecessor of British Petroleum (BP) had attained a position of importance.¹³ These three companies attempted to minimize competition, stabilize the world market, and organize the markets by carving them up amongst themselves. This was called the "as is" agreement or Achnacarry Accord of 1928.¹⁴ However, due to economic and political factors outside of their control, the oil companies found themselves unable to enforce their "as is" provisions and joint-ventures between and amongst themselves proliferated. By 1939, the other four "sisters" -- Standard Oil of California, the Texas Company (now Texaco), Socony-Vacuum (now Mobil) and Gulf had joined the other three as significant powers in international oil.¹⁵ The two Standard companies plus Mobil when it was Socony-Vacuum were at one time part of the same corporation, however an antitrust suit resulted in its dissolution in 1911.

During the postwar years, non-Communist governments

moved from a position of laissez-faire to one of active participation or control in the oil industry. National energy policies were promulgated, government oil companies were organized, and multinational blocs and individual nations regulated the private petroleum enterprises.¹⁶ The primary result of these changes was the enhancement of competition in the industry. Governments encouraged new entrants which diffused the structure of the industry. The number of competing firms increased and the market position of the largest international oil companies declined, reducing concentration.¹⁷ From 1953-1972, more than 300 private companies and more than 50 government-owned companies either entered the foreign oil industry or expanded their participation significantly.¹⁸ By the end of 1972 at least fifty of them were integrated international oil enterprises, participating in several divisions of the industry in several countries. Twenty-five to fifty more were internationally significant in one or another division of the industry.¹⁹

The rapid postwar spread of private oil companies can be accounted for by a number of factors. These included easier conditions of entry, reduced apparent risks, and stronger profit incentives.²⁰ The capital and human resource requirements of entry were reduced by the increased availability, on a fee or contract basis, of tankers, specialized geological and geophysical services, and foreign contract drilling and engineering services.²¹

The entrance of state-owned firms was also a response to particular factors, notably national security, socialist ideology in some cases, and bargaining strength. The state oil companies became a symbol of national sovereignty and prestige.²² The major TNCs adapted to and even turned the economic nationalism of the 1960's, which was represented to a large extent by state owned oil firms, to their advantage... By incorporating the state into the industry, the supply of raw materials to the companies could actually be made more stable²³ and stability of supplies was always one of the main concerns of the oil industry.

Therefore, important changes in the structure of the foreign oil industry were wrought by the postwar mushrooming of oil enterprises -- competition multiplied, concentration of the industry was reduced, and the market position of the seven majors shrank.²⁴ In 1952, the majors accounted for ninety percent of crude oil production and were marketing seventy-five percent of oil products outside North America and the Communist countries, while in 1968 the figures were seventy-five percent and slightly more than fifty percent respectively, and in 1972 they were approximately sixty-three percent and fifty-nine percent.²⁵

Although the market position of the seven majors has declined, the petroleum industry is still considered an oligopoly (ie. a few sellers in a given market) made up at present by both national and private corporations.²⁶

All the non-major companies including national oil corporations fall under the heading of "independents".

Through the restriction of competition they exact a higher-than-normal rent from the final consumers.²⁷ Three factors restrict competition: these are barriers to entry which have already been mentioned; the non-availability of substitutes; and the ability to coordinate pricing and investment policy amongst the oligopolists either formally or informally.

The oil companies work together in joint enterprises in marketing,*refining, crude oil production and exploration. Therefore, they have a common interest in the success and maintenance of profitability of the industry as a whole at as high a level as possible consistent with the full exploitation of the opportunities available to each. The maintenance or improvement of each individual company's position vis-a-vis the others is sought while there is acceptance of restraints that arise from the recognition that some action, though profitable in the short run, would in the long term be defeated by the retaliation of others. Restraint is most often exercised in respect to prices while non-price competition is very vigorous.²⁸

In order to ensure the generation of high returns, the corporation, whether private or national, must make sure that it can profit from the restriction of competition at the stage of production under its control, and can pass the high prices on downstream. If there is another

*Marketing is the essential ingredient today in the oligopoly.

oligopoly or monopoly at the next stage downstream, the best method of protection must be figured out. The most common means of assurance is through vertical integration, to be involved in both the upstream and downstream operations of the industry. For if a company were involved in just the production end, there is always the possibility that in times when the demand is slack, the producer will be forced to sell his resource at below average costs. Therefore, to be assured an outlet, and to avoid low prices, the producer will make an investment in the stage over which he has least control. Apart from any tax consideration, vertical integration in the petroleum industry is profitable because markets are imperfect, and the imperfections that promote integration are in turn intensified by the very existence of wide-spread integration. If the integration of the major firms gives them preferential access to crude supplies then all firms will be forced to adopt the same structure to ensure their own supplies.²⁹ As the fabricators and consumers want to be assured of consistent supplies in times of shortage, they too engage in risk-avoidance behaviour. As already stated, vertical integration is one way of dealing with this kind of problem, but there are alternate means available. These could be long-term contracts at producers' prices whereby the price is renegotiated with bonus or discount to suit the market conditions; joint financing arrangements; minority equity positions; or annual contracts that

provide for perpetual renewal between arms-length buyers and sellers. These other options create to a large extent a structure of informal vertical integration.³⁰

The threat of substitution in the petroleum industry is not as great as in other natural resources. At the present time, there really is no other resource that could be used to keep the industrial machines of the west going in the quantities required.³¹ However, to safeguard their future, many oil companies have diversified into alternate energy sources -- eg. solar energy, nuclear energy. Therefore, they themselves will be the owners of the challengers of the future.

The Corporate Economic System versus the National Economy

The transnational corporation has a global system in which any particular country is just one of its bases of operations. Its apparatus involves extraction, refining, fabrication and marketing. The natural resource with which it is involved is required to maintain revenues, profits and the existing levels of corporate production. In the long run it is required to service long-term corporate profitability and growth.³² The subsidiary in any given location or stage does not determine level, price or destination of output; the sources or prices of inputs; the techniques of production that are utilized; the rate of new investment or the expansion of capacity. All of these decisions are made by the head office in

terms of its entire corporate strategy.³³

For the national economy, the resource is generally its principal means of generating foreign exchange and therefore determines import financing. It is an important source of government revenue and consequently affects government expenditure, employment and income. The natural resource is required to service the maintenance of existing levels of imports, employment, national income, and long-term national economic growth and development.³⁴

The dependence of the TNC on its subsidiary, and the national economy on the subsidiary are asymmetrical, the national economy is usually the more dependent of the two. The TNC deals with a number of countries separately due to its geo-political spread. The individual country on the other hand, negotiates with a small number of subsidiaries, and by virtue of its own internal legislation bargains with them virtually as a collective. The nation's profits through these agreements, are clearcut, whereas the TNC can shift its profits internally from one place to another. Most important, the corporate growth does not customarily depend on any one of its subsidiaries or one product, while the national government is not usually in this enviable state.

Therefore conflict between the corporation and national economy over the use of the same resource, is inherent and inevitable. Even when one is talking about a state-owned firm, there is still a potential conflict

of interest if the firm is to be part of the international oligopoly and it has already been explained in the preceding section why an oil company would seek vertical integration and a place amongst the international oligopoly. However, oligopolistic behaviour might not necessarily reflect the best interests of the population. As will be evident in the chapter on Indonesia, this kind of policy can intensify wage differentials in the society; result in labour displacement from rural to urban sectors of the economy; may divert resources from where they are needed to where they are most profitably sold; may create capital-intensive industries when the need is for employment creation; and involve the growth of a larger bureaucratic class along with its allies in the middle class while there is a continuation of mass poverty. In other words, the decisions on the techniques of production that are utilized, the rate of new investment or the expansion of capacity, might be determined by the company's desire to maintain or improve its competitive position internationally. Accordingly, it becomes obvious, that the potential of a state petroleum company, can be neutralized in regard to effecting structural transformation, for there is no evidence that decisions based on corporate logic will resolve the problems of unemployment and rural poverty which are the fundamental conditions for the alleviation of poverty in most third world countries.³⁵

Interdependence and Oil

Having looked at the potential for conflict in the microcosm, we now turn to interdependence in the macrocosm. The complexity of interaction in the world energy system suggests that economic analysis cannot be the sole explanation of oil transactions and agreements. Political objectives are often paramount, and therefore the interactions between economic instrumentalities and political motivation provides much of the intricacy of petroleum politics.³⁶

There is a basic structure of global petroleum interdependence created by the need of consuming nations to buy oil and producing nations to sell oil to continue their own development. The paradox of development itself increases interdependence.

...development in the form of industrialization and diversification entails a multiplication of dependencies, and the bargaining power that the dependency of others bestows can only be exerted for development purposes at the expense of assuming a reciprocal dependency. The corollary is equally striking--the industrial nations, in order to survive their dependency upon others, have no alternative but to allow those others not only to move toward them on the scale of "development" but also, in the process, to become increasingly dependent upon them.³⁷

Thus although the import and export of petroleum define the basic transactions and fundamental dependencies, total commodity trade and the alternatives available to importers and exporters modify these. Accordingly, a situation is created in which a broad range of each

nations' policies are influenced by those of others.³⁸ Efforts to reduce the impact of constraints in policy formation which grow out of this interdependence, may, in fact, have the paradoxical effect of lessening decisional autonomy and control over resources. If a producing country tries to minimize these constraints by nationalizing production, it is still faced with the problems of shipping and marketing. Hence it must make itself attractive to potential buyers in order to sell its oil at the very moment when its nationalization might make the situation even more difficult. This is because the country concerned might now be considered by the TNCs an even greater risk than before. Therefore the terms it offers might possibly have to be even more concessional than prior to its move to have more control.

The impact of the division of control between national governments, state oil companies and the TNCs defines interdependence in the oil industry. Coordination amongst them is required in order to bring about the desired outcome in petroleum transactions, however their differing vulnerabilities produce varied basic realities. Consequently, the interactions of the producing and consuming nations are shaped by these basic realities and as such define the leverages that each may exert on the other.

The consumers are vulnerable to oil embargoes -- the denial of access which might be shaped by political

objectives not economic rationality. They are also vulnerable to manipulation of petroleum revenue; to increases in prices; and are sensitive to difficulties in planning associated with accomodating price increases. Given these vulnerabilities, there are bound to be disagreements amongst oil importers themselves as well as between importers and exporters.

The exporters on the other hand, have another set of vulnerabilities. They know their resource is depletable and perceive the risks associated with accelerated production. They are vulnerable to military intervention and the Organization of Petroleum Exporting Countries (OPEC) is sensitive to internal political and economic discord. The exporters economies are highly dependent on trade with the west and on continued access to industrial goods, advanced technology³⁹ and associated services. The fact that these can be obtained from many developed countries does not negate the reality of the dependence, but only its potential use by the west as a means of influencing policy of the oil exporting countries.⁴⁰ They are also dependent on industrialized and non-industrialized countries for raw materials to feed into their new industries. In addition, most oil-exporting countries have only rudimentary banking institutions of their own.

They must depend, therefore, upon banking structures within the jurisprudence of the oil-importing countries and on international financial agencies over which the oil-importers exercise decisive influence.⁴¹

The oil transnationals are constrained by OPEC regarding production and pricing, and by the direct involvement of consumer governments in petroleum decisions related to procurement and distribution. In their pursuit of vertical integration, the state oil companies have oftentimes entered into partnerships with foreign TNCs in other countries.⁴² Therefore there would be perceptions of common interest between these state oil companies and the foreign TNCs and this shared interest might not be the same as the national interest of the home government.

The political importance of resource-related transactions that are often asymmetrical signal the presence of mutual constraints. From the recognition of increased vulnerability comes the realization of shared interest. The search for shared interest then becomes a major political imperative.⁴³

Structural asymmetries, attendant vulnerabilities and shared interest, all ultimately involve the broadly conceived costs that nations are willing to incur in order to minimize those constraints on national autonomy regarded as threatening.⁴⁴ The costs can be economic, military, strategic, environmental or political. For some consumer countries there are political costs related to a strategy of accommodation with the exporters. Similar constraints on producers, and differences in political orientation, make these constraints even more

salient.⁴⁵ The political orientation or prevalent ideology in a particular country is a very important consideration. If, for example, "self-reliance" is a component of a government's ideology, then no matter how good a proposal might seem, there are certain self-imposed limits beyond which a host country will not go. Therefore, party ideology is the framework within which all negotiations or agreements (with foreign companies or governments) will be dealt with. The ideological umbrella determines economic policy and thereby defines the instruments that are viable and available:

As the course of development proceeds, more nations come to be involved together not only in a larger number of markets but also in a wider network of reciprocal dependencies. As that happens their bargaining power vis-a-vis each other comes to be the sum of their relative strengths and weaknesses in all those contexts, yielding a growing complexity of political cooperation and conflict, which force, except at the limit, can no longer simplify.⁴⁶

Bargaining

In the first half of the twentieth century, national oil companies in the LDCs were nonexistent. The big international oil firms bargained with governments that were essentially weak; lacked knowledge of other agreements; lacked competent negotiating officials; and lacked institutional infrastructure.⁴⁷ However, the advent of OPEC in 1960 changed the picture significantly. Research and information were exchanged amongst the members and they were increasingly able to bargain as an effective

unit.

Since the middle of the century, the production of oil resources has been progressively taken over by what were the host countries.

Economic nationalism takes many forms, but the United Nations reports a clear trend toward the most radical form of state intervention -- nationalization. Although nationalization of foreign assets rarely took place outside the centrally planned economies before 1960, the U.N. recorded an average of 45.5 nationalizations annually for the period 1960-1969, rising to 93.3 per year during 1970-1974 -- all in third world countries.⁴⁸

If there has not been total nationalization of the industry, there has been some degree of government participation in most countries. By June 1968, OPEC was exerting pressure for participation of host governments in the ownership of oil concessions. If the existing contracts did not provide for participation, OPEC asserted that the host governments might acquire it on the grounds of "changing circumstances". At the same time it advanced the thesis that the oil resources of its members were being "exploited" detrimentally to their economic development.⁴⁹ However, joint-ventures or co-participation in and of themselves, do not necessarily determine control. Although the national government might legally own the production of oil, one cannot assume that they are in effective control. Many of the problems have already been discussed in the

section on interdependence.

There is no LDC that has been able to exploit its resources entirely on its own. It is a matter of relativity, to what degree they are dependent on foreign help that will determine whether their relationships with these outside parties are ones of dependence or interdependence. Here we can define a dependent situation in the petroleum sector of an individual country as one in which the petro-transnationals make the decisions on the allocation of resources, the access to technology, marketing procedures, reinvestment and repatriation of profits. In other words, development of the exploitation of the resource with its ensuing implications for the entire economic development of the country are made by expatriates. Interdependence in this light, might be the type of agreements made by transnational corporations in a number of socialist countries.

Contractual joint-ventures, or co-production agreements, are based on national ownership, limited duration and explicit provision for renegotiation, and involve a reduction of many of the risks usually attached to foreign direct investment.⁵⁰

All of the bargaining models to date have been concerned essentially with negotiations between foreign firms and national governments over the extent to which direct foreign investment would be permitted. This is no longer appropriate in many cases, for a nationalized

industry does not permit foreign equity at the production stage, although it might go into joint-ventures in the downstream operations. Even when direct foreign investment is not at issue, there is still great latitude for foreign participation and consequently, influence, in the development of the industry. Subsequently, there is a considerable amount of bargaining that takes place.

Drawing heavily on the works of T. Morán, C. Vaitzos and R. Mikesell, I shall attempt to develop a bargaining model that takes consideration of the new actors and circumstances involved.

The Dynamics of Bargaining

In the petroleum industry, capital investment for new production or facilities comes in large chunks. This means that there is a shift in bargaining power before and after each new investment.⁵¹ Before the investment, whether direct or indirect, i.e. through financing, contracts etc., the strength is in the hands of the foreigner, while after the operation has proved successful, it tilts in favour of the national government because the elements of risk and uncertainty are no longer there. In the initial stages, the government is a risk-avoider while the foreign company is a risk-taker.

Uncertainty, however, is not the only independent variable. The host country might also be said to progress

along a learning curve. When ventures are successful, an incentive is provided for the host country to develop the skills and expertise appropriate to the industry. At first attempts are made to tighten the structure of the bargaining process, and as the country moves up the learning curve, they go from monitoring industrial behaviour to replicating complex corporate functions.⁵² The value of the industry's revenues to the host country to sustain growth and/or dissipate local tensions in countries where rapid development and social mobilization is high, is magnified by the development process itself. Therefore, the leaders of these countries must push against the foreign companies to get the most possible out of the industry. As the bargaining skills and the operational experience are accumulated, the relations between the foreign companies and the host country do not just swing back and forth for there are cumulative gains made by the host country through learning. The extreme end of the learning curve represents the ability of the host country to take over the operations of the industry, and is the point at which the costs of nationalization would be minimized. However, I maintain that even though de jure control has shifted to the nation and might look thus on paper, it is not necessarily actual control, and bargaining continues. The short-run swings in power, before and after new agreements are

made, are as important to consider as is the long-run cumulative change.

In the petroleum industry, the substantial shift toward the producing countries through collective action has been mitigated in 1976-1977 by the disunity of OPEC regarding prices. This is indicative of another problem in the making -- that of producer versus producer. As each country pushes to maximize its gains from oil production, this effectively destroys the mechanism whereby they acquired their power in the first place. The result is a constant readjustment in the balance-of-power. Joint-maximization is an ongoing process whereby each party accedes to necessity when it is weak and acts in accordance with its best interest when it is in a position of strength.⁵³ Therefore, joint-maximization might be considered as getting the best agreement as possible for each party given the particular circumstances at a certain point in time.

Hence, the cumulative shift in the balance-of-power is a result of national learning but can be mitigated by various circumstances which will be discussed in the next section; while the short-run swings are a product of sharp reversals in the perception of uncertainty.

Theoretical Structure

By combining the above stated dynamic bargaining model with a theoretical structure we will be able to

analyze a given situation in terms of economic nationalism, joint-maximization, foreign domination and international exploitation.⁵⁴ Theodore Moran suggests that foreign company-host country relations of conflict or cooperation are a function of three variables along three dimensions.⁵⁵

1) The first dimension specifies the TARGET of national concern. How "prominent" or "sensitive" is the industry in the national economy, national prestige, or national political tradition? In an LDC an industry that determines the rate of domestic economic activity and the availability of foreign exchange for growth would be considered vital or sensitive. If said industry is dependent on foreigners to a great extent, that dependence could constitute a threat to national sovereignty, welfare or security.⁵⁶

2) The second dimension concerns the SETTING of any negotiation -- measuring the national perceptions of the advantages of the foreign contribution to the industry and the perceptions of the costs involved in doing without or replacing these advantages. This incorporates an analysis of at what point in the swings of the balance-of-power the host country and the foreign firms find themselves.

3) The third dimension specifies how POLICY FORMATION takes place. This dimension measures the value in social, political or economic terms to various domestic groups to maintain, increase or expel the foreign presence, and weigh their relative abilities to influence public policy in

line with their interests. For example, one might see if there is an industrial enclave and if so, who does it benefit and who does it affect?

On examination, it becomes obvious that perceptions of these three dimensions are influenced, if not governed, by the political orientation of the national development strategy ie. capitalist or socialist. The current bargaining analyses are too micro-based and therefore miss the macro-factors, that is the broad political orientation and development strategy plus the social structures of the countries involved. The case analyses that will be presented will incorporate these factors as they provide the context for understanding national petroleum industry policy.

The failure of a nation to use all of its bargaining strength could be due to ignorance and error; a government trade-off for something else in the national interest; or influential domestic group payoffs to foreigners in order to receive some side benefits that serve their own individual interests.

Strength or weakness in the three dimensions will determine the kinds of relationships a country will have with foreign firms. The balance-of-power framework allows us to see the options open to policy-makers within a particular time and circumstance, the horizon of domestic knowledge and experience, and the umbrella ideology and

development strategy. The national policy will be the outcome of the interactions of particular domestic interest groups that try to maximize their own interests as well as the national interest.⁵⁷

In short, the bargaining model used in this thesis is a dynamic one. It shows a process of ongoing readjustment in the short-run balance-of-power which is dependent on the variables of risk and uncertainty. As well, there are cumulative shifts in strength brought about by national and corporate learning and international circumstances. The theoretical framework involves the investigation of three dimensions -- these being target, setting and policy formation.

In this thesis an examination will be made of the petroleum relationships between Japan and Indonesia and Japan and the Peoples Republic of China. We will attempt to determine who got the better of the bargaining relationship-- Japan or Indonesia; Japan or China, and why they did. The explanation will involve three aspects:

- 1) factors relating to the structure of the petroleum industry and the TNCs (eg. concentration)
- 2) factors relating to the host country (eg. ideological variables)
- 3) factors relating to the relationship between the TNCs and the host countries (eg. asymmetric vulnerabilities)

The bargaining framework and model will pinpoint the power positions of our case countries in a certain time period. They will highlight the fundamental bargaining power discrepancies between the China-Japan pattern and the Indonesia-Japan pattern and will support the assertion of Indonesian dependence and Chinese independence in their petroleum relations with Japan within a worldwide context of interdependence.

NOTES

¹Neil H. Jacoby, Multinational Oil, (New York: MacMillan Publishing Co. Inc., 1974) p.25

²Entry can be broadly defined as both the original participation of a new firm in the petroleum industry, or a major expansion of the operations of an existing firm into a new division of the industry or into a new geographic region. (Jacoby, Multinational Oil, p.148)

³Jacoby, Multinational Oil, p.124.

⁴Raymond F. Mikesell, Foreign Investment in the Petroleum and Mineral Industries (Baltimore & London: The John Hopkins Press, 1971) p.11 (hereafter cited as Mikesell, Foreign Investment).

⁵Michael Tanzer, The Political Economy of International Oil and the Underdeveloped Countries (Boston: Beacon Press, 1969) p.134 (hereafter cited as Tanzer, Political Economy).

⁶Tanzer, Political Economy, p.128.

⁷Mikesell, Foreign Investment, p.26.

⁸Tanzer, Political Economy, p.126.

⁹Tanzer, Political Economy, p.127.

¹⁰Frederick Clairmonte, "Dynamics of International Exploitation", Economic and Political Weekly 10 (9 August 1975):1186-1188, p.1187.

¹¹Mira Wilkins, "The Oil Companies in Perspective", Daedalus, Journal of the American Academy of Arts and Sciences (Fall 1975):159-178, p.159. (This volume cited as Daedalus).

¹²Ibid.

¹³Ibid, p.160.

¹⁴Ibid.

¹⁵Ibid, p.161.

¹⁶Jacoby, Multinational Oil, p.116.

¹⁷Regarding the reduction of concentration in the industry see also: Anthony Sampson, The Seven Sisters (New York: Bantam Books and Viking Press, 1976) pp.167-185. and Wilkins, "The Oil Companies in Perspective", p.162.

¹⁸Jacoby, Multinational Oil, p.120.

¹⁹Ibid.

²⁰Ibid, p.123.

²¹Ibid, p.124.

²²Ibid, p.125.

²³Norman Girvan, "Economic Nationalism", Daedalus: 145-158, p.153.

²⁴Jacoby, Multinational Oil, p.172.

²⁵1952 & 1968 statistics from Wilkins, "The Oil Companies in Perspective", p.162. 1972 statistics from class notes, course - The Economics and Politics of Oil, Carleton University, 1976.

²⁶The oligopolistic workings of the industry were demonstrated in 1971 when many companies were faced with Libyan pressures for higher profits or expropriation. The major TNCs agreed to "take care" of the independents, in other words they would provide the independents with adequate crude oil to meet their commitments out of their own diversified oil supplies. (Wilkins, "The Oil Companies in Perspective", p.167).

²⁷Theodore Moran, Multinational Corporations and the Politics of Dependence: Copper in Chile (Princeton, New Jersey: Princeton University Press, 1974) p.16 (hereafter cited as Multinational Corporations).

²⁸Edith Penrose, The Growth of Firms, Middle East Oil and Other Essays (London: Frank Cass & Co., 1971) p.180 (hereafter cited as Penrose, Middle East Oil).

²⁹Edith Penrose, The Large International Firms in Developing Countries (London: George Allen & Unwin Ltd., 1968) p.254.

³⁰Moran, Multinational Corporations, p.53.

³¹The price elasticity of demand for the lighter petroleum products -- gasoline, diesel oil, kerosene and lubricants -- is normally low, at least in the short run. "Even substantial shifts in price will not cause large changes in the quantities demanded, which are determined by technical factors and by the general level of economic activity. The heavier distillates and fuel oils, on the other hand, may have low price levels in terms of their thermal and labour inputs relative to the prices of older, more established fuels." Alex Hunter, "The Indonesian Oil Industry", ed. Bruce Glassburner, The Economy of Indonesia (Ithaca & London: Cornell University Press, 1971) :254-314, p.284.

³²Norman Girvan, Copper in Chile: A Study in Conflict Between Corporate and National Economy (Surrey, England: Gresham Press, 1972) p.xi (hereafter cited as Girvan, Copper in Chile).

³³Norman Girvan, "Multinational Corporations and Dependent Underdevelopment in Mineral-Export Economies", Social and Economic Studies 19 (December 1970) p.504 (hereafter cited as Girvan, Dependent Underdevelopment).

³⁴Girvan, Copper in Chile, p.11.

³⁵Girvan, "Economic Nationalism", p.157.

³⁶Nazli Choucri, International Politics of Energy Interdependence (Lexington, Mass.: Lexington Books and D.C. Heath & Co., 1976) p.185 (hereafter cited as Choucri, Energy Interdependence).

³⁷Ian Smart, "Uniqueness and Generality", Daedalus : 259-281, p.276.

³⁸Choucri, Energy Interdependence, p.185.

³⁹Technology: a system of technical knowledge combining certain specific factors and inputs in production, in a specific pattern. (Shigeru Ishikawa, "A Note on the Choice of Technology in China" ed. Charles Cooper (London: Frank Cass, 1973)) Science, Technology and Development.

⁴⁰Choucri, Energy Interdependence, p.187.

⁴¹Smart, "Uniqueness and Generality", p.277.

⁴²Raymond Vernon, "The Distribution of Power", Daedalus: 245-257, p.252.

⁴³Choucri, Energy Interdependence, p.188.

⁴⁴Ibid, p.189.

⁴⁵Ibid, p.190.

⁴⁶Smart, "Uniqueness and Generality", p.279.

⁴⁷Constantine Vaitsos, Intercountry Income Distribution and Transnational Enterprises (Oxford: Clarendon Press, 1974). p.132.

⁴⁸Jeanne Laux & Maureen Molot, "Multinational Corporations and Economic Nationalism: Conflict over Resource Development in Canada" (forthcoming article 1977). p.1.

⁴⁹Jacoby, Multinational Oil, pp. 261-262.

⁵⁰United Nations, The Impact of Multinational Corporations on Development and on International Relations (New York: Department of Economic and Social Affairs, 1974) p.39.

⁵¹Moran, Multinational Corporations, p.161.

⁵²Ibid, p.164.

⁵³Ibid, p.169.

⁵⁴Ibid, p.217.

⁵⁵Ibid, pp.216-217.

⁵⁶Ibid, pp.218-219.

⁵⁷Ibid, p.155.

CHAPTER II

JAPAN AND ENERGY

In post World War II Japan, the international oil majors had positioned themselves as de facto integrated oil firms. In order to combat this dependency on foreigners, the Ministry of International Trade and Industry (MITI) encouraged the entrance of independent Japanese oil interests into the industry. However, Japanese companies were not very successful in their oil ventures abroad. Therefore, when the worldwide market in crude oil shifted from glut to shortage, MITI instituted new oil policies for Japan. One new aspect was the encouragement of cooperation between Japanese oil companies and the petro-transnationals in the discovery and supply of petroleum, as opposed to competition which was advocated earlier, and cooperation with the oil producing countries in their efforts to industrialize. As Japan is dependent on imported oil for almost 100 percent of its oil needs, the oil crisis and embargo in late 1973 had important implications for the Japanese economy. In response, the Japanese government was forced to change its international policy of divorcing economics from politics and Japan reemerged as a political actor

in the international arena. Another result was the intensification of the attempt to diversify areas of supply as one of the reasons for the Japanese reactions to the oil crisis was that 80 percent of Japanese oil came from the Middle East. Consequently, from the early 1970's on, Japanese interests regarding oil were:

- 1) to cooperate with the foreign petro-transnationals
 - 2) to cooperate with producing governments in their efforts to industrialize
 - 3) to diversify their sources of supply geographically
- These three Japanese bargaining interests had security of supply as their motivation.

Domestic and International Energy Policies

~~Prior~~ to World War II, Japanese industry was based on coal and hydroelectric power, which were both adequately available at home, and in Japan's newly acquired colony Manchuria. The use of oil and its derivatives was growing, but the largest users of petroleum products were the Imperial Forces of Japan.¹ After World War II, Japan's coal mines were old and tired and hydroelectricity was recognized as having limited scope. With the encouragement of her American occupiers, the Japanese decided to shift to oil. At the same time, in order to cut down the foreign exchange drain represented by imported refined products, Japan moved to expand her

inadequate refining facilities.² Much of Japan's oil refining facilities had been destroyed by Allied bombing during the war. In the immediate post-war years, Japan was not permitted to reconstruct these facilities and this has been widely attributed in the Japanese oil industry to the fact that American personnel on temporary leave from Jersey Standard and Mobil heavily staffed the oil bureau of General MacArthur's headquarters. Accordingly, it has been proposed, that the oil group only changed its attitude when the international oil majors began to prefer refining closer to a major consuming market.³

This was due in part to the higher tariff in consuming countries on refined products as opposed to crude oil, and the financial loss factor disparity between losing a tanker of crude as opposed to refined products --

this reason was especially prominent during the Korean War. As the need for capital and foreign exchange, plus the fact that much of the equipment and expertise was available only from the United States in 1950, the Japanese government, against the traditional Japanese attitude to foreign participation in basic industries, allowed the TNCs to join forces with local refining companies. Each party put up half the capital required, with the TNC covering its share in foreign exchange.

In return for this, the companies putting up the dollars, secured the permanent right to supply all the crude ever

needed by these refineries. Japan now calls this "tied" crude.⁴ In fact, "Mobil, Shell, and Getty positioned themselves as de facto integrated oil firms in Japan, whose refining and marketing interests were tied to their crude-oil interests held outside Japan."⁵

With the dissolution of the zaibatsu (the leading industrial groups) after the war, industrial planning and resource allocation, was taken over by MITI. This ministry came to favour Japanese oil refiners and marketers that were not in such a dependent relationship with the foreign oil firms. It structured the oil industry such that independent Japanese oil interests should constitute at least thirty percent of the market share in both the refining and wholesale stages of the oil industry.⁶

By 1962, there were seven independent Japanese oil refineries and their capacity approached forty-five percent of the total capacity in Japan. The rationale appeared to be that a limited number of large Japanese oil wholesalers with their own refining operations would (best be able to compete with the subsidiaries of the foreign oil majors.⁷ MITI's concern over the procurement of Japan's own oil was backed up by the government offering tax exemptions as well as direct aid to companies that would search for and develop Japan's own oil and gas reserves.⁸

However, as the oil market was becoming increasingly glutted in the late 1950s and early 1960s, MITI's goal

became keeping the prices of refined petroleum products in Japan as low as possible for the benefit of Japan's heavy industries. This was accomplished by keeping the Japanese oil industry fragmented. MITI allowed more new entrants into the wholesale and refining areas of the business, while it kept them out of balance to impede vertical integration of refining and wholesale operations.⁹

... twenty-eight separate refining operations, the largest of which had less than 12% of the refining market, were competing with one another to sell their products to thirteen oil wholesalers, including six subsidiaries of foreign oil firms.¹⁰

MITI's strategy was to encourage price competition on petroleum products within Japan while protecting them from outside competition with high tariffs. By 1973, there were sixteen Japanese fully-owned firms in the refining industry. Nevertheless, this proliferation was limited to "downstream" operations in the refining to retailing stages.

Although it seemed the oil glut was still persisting, the Japanese Energy Council established a goal in February 1967, that Japanese companies should account for thirty percent of Japan's total crude oil demand by 1985.¹¹ This was because "tied" crude being in a dominant position could hamstring Japanese industries. As a result the government established the Japan Petroleum Development Corporation (JPDC), a wholly-owned government subsidiary. The JPDC was authorized to invest and loan money for

overseas exploration of oil and natural gas; to guarantee loans for such purposes; to give technical advice; and to conduct geological investigations.¹² Its terms were extremely easy for the private companies and included non-repayment if the project failed. However, its own direct investment was restricted to the exploration phase and was required by law to divest itself of any equity interest once the project entered the development stage.¹³ Within three years, Japanese companies spanned the globe¹⁴ (see exploration map next page). They were not very successful, although prolific, and in 1973, the only overseas Japanese production of crude oil, the Arabian Oil Company, supplied less than nine percent of Japan's crude requirements, while eighty percent came from the TNCs, and the remaining eleven percent was procured by trading firms from independent foreign oil firms.¹⁵

The worldwide market in crude oil started shifting from glut to shortage by the end of the 1960s. This, however, went unnoticed by MITI and the Japanese oil firms prior to the Teheran Agreement of 1971. One explanation for this was that the increase in crude oil prices had been absorbed by the international majors and had not been passed on to the Japanese oil consumer.¹⁶ At this point, the independent oil firms began to feel the squeeze -- higher prices for crude oil and fierce competition for refined products. Due to the weakened

Figure 2

JAPAN'S EXPLORATION EFFORT

Source: IDOC, Asia, Oil Politics and the Energy Crisis. New York: IDOC International Documentation 60-61, 1974. p.49.

financial position of the Japanese oil firms, MITI did an about face. It tacitly agreed to a range of price increases, product by product, and encouraged large firms in various industries to cooperate in fixing prices. MITI's policy lay in fostering Japanese oil firms and it was this policy that was being threatened.¹⁷ On the other hand, MITI published a "white paper" late in 1973 which made four proposals for government policy: top priority to ensuring energy supply; long-term stabilization of energy supply; international cooperation on energy supply; and the promotion of programs to ensure environmental protection. One new emphasis in particular called for the restructuring of the petroleum industry to integrate its functions. The "white paper" called for Japanese cooperation with oil producing countries in their efforts to industrialize, with TNCs to aid in the discovery and supply of petroleum, and with oil consuming countries to insure supplies in emergency situations.¹⁸ These policies were a little late in coming.

During 1973, considerable pressure was put on Japan by the United States, the United Kingdom and West Germany to join a consumer's bloc, but the Japanese government was troubled by warnings such as that by Sheikh Yamani of Saudi Arabia, who warned that a consumer's cartel could mean a "petroleum war" and therefore, Japan rejected the idea. Some Japanese had felt that

the US State Department's tacit approval of the 1971 price increase, was an easy way of slowing down the Japanese economy, for Japanese exports had been irritating the United States, and the Americans knew that Japan would be hardest hit. Perhaps the Japanese felt that the high prices would hurt them less than continued dependence on western oil companies which would happen even if they joined a common front instead of engaging in open competition.¹⁹ On top of this, 1973 brought new insecurities regarding TNC oil. In January, Japanese refiners were shocked when Exxon, Mobil, Shell and BP unilaterally announced a ten-twenty percent crude supply cutback for the first quarter. Thus Japan entered the energy crisis period with insecurity of supplies, heightened costs, and a realization that policy changes would have to be made.

At the turn of the decade, there had been a shift from a buyer's to a seller's market in oil. This was reflected in the hikes in producer government "take" starting in 1971. Although this trend was evident, the United States and the oil companies assured other governments at the 20 January 1971 OECD meeting that if they offered no resistance to higher oil prices, they could count on at least five years secure supply at stable or only slightly rising prices.²⁰ The OECD spokesman said that contingency arrangements for coping

with an oil shortage had not been discussed at the meeting. This could, and has been interpreted by some, as the first capitulation of the industrialized countries. It gave OPEC the go-ahead by implying that there would be no resistance to their actions. Threats of an embargo were made hereafter, and on 7 February they were culminated in OPEC Resolution XXII.131, and were never withdrawn!²¹ When major oil price rises and the oil embargo were imposed in October-December 1973, the reaction on the part of the industrialized world was one of disbelief.

The Japanese government had believed that since Japanese owned the Arabian Oil Co., it was at least assured of a certain amount of crude.²² This proved to be an error, as one of the first forms of direct pressure exerted on Japan was through the Arabian Oil Co: when Saudi Arabia ordered it to cut its crude production by ten percent of the average level of September 1973. The company was told to hold production at this lower level until the end of November, and would be advised later as to future steps.²³ Almost simultaneously, BP, Exxon and Gulf notified the Japanese refiners that their crude deliveries would be reduced. In turn, the refiners advised their clients that supplies of petroleum products would be cut back due to the reduced crude deliveries. Japan had thought it would be considered a "friendly" state, and therefore, was taken by surprise. As costs increased and

supplies became dubious, the specter of severe shortages, reminiscent of the second world war, loomed before the public. It has been suggested that the seeming inaction of MITI and the oil industry to allay mass fear of commodity shortages from October-December 1973, was a conscious ploy to use the public fear to rebuild their own bureaucratic position.²⁴

The Organization of Arab Petroleum Exporting Countries (OAPEC) pressure was responded to quickly. On 17 October, Japan was classified "unfriendly". On 14 November, Prime Minister Tanaka reportedly told the US Secretary of State Henry Kissinger that Japan would have to pursue an independent diplomatic policy vis-a-vis the Arabs. Prior to this, the Japanese had prided themselves on separating economics from politics. They had let the United States form the foreign policy stances and the Japanese related to the world in terms of business. In fact, they had been called by some "economic animals". This stance was no longer possible. The oil embargo had the effect of forcing the Japanese to mix economics with politics and take a stance. The Japanese could not accept Kissinger's advice not to capitulate to OAPEC regarding the Middle East. There were suspicions amongst the Japanese government, bureaucracy and business leaders, that there was a Kissinger-Israel conspiracy. One version was that the United States was happy to see Japan and West

Germany losing their foreign exchange reserves. This combined with spreading suspicion that the TNCs were diverting oil to the US at Japan's expense was enough to convince the Japanese government that it should endorse OAPEC's position.²⁵ On 22 November, Nikaido, Chief Secretary of the Cabinet, made a statement which included the following: 1) that Israel should withdraw from the territories it had occupied since 1967; 2) that Japan subscribed to the position that the right of self-determination of the Palestinians should be a precondition to a peaceful solution in the Middle East; 3) that the Japanese government would reconsider its policies regarding Israel in the event of the latter's refusal to accept these preconditions.²⁶ At the OAPEC Algerian meeting, five days later, the Arabs announced that restrictions on oil shipments to Japan and the EEC (excepting the Netherlands) would henceforth be on the same footing. Thus within a month, Japan had completed the first stage of its diplomatic adjustments.

Once the Japanese government became convinced that its interests lay in cultivating closer political ties with the oil-exporting countries, it started its second round of resource diplomacy, which overlapped the first, that of sending special envoys around the oil-exporting world. These visits were to convey Japan's goodwill to the Arab states and to pave the way for

securing future energy supplies from both Arab and non-Arab countries. From 7-17 January 1974, Prime Minister Tanaka went to the Association of Southeast Asian Nations (ASEAN), and of course Indonesia was the most significant as it supplied a fair percentage of Japanese oil.

One of the reasons why Japan had made such economic progress after World War II was because it had escaped from the burdens of continually increasing military budgets and the arms race.²⁷ Consequently, at the time of the energy crisis, Japan had no recourse to a military response; all that was available to the Japanese government was compromise and accommodation. Thus to suit the needs of the time, Japan changed its foreign policy as well as its strategy of economic investment. By incorporating the economic interests of the oil producing countries into their own, the Japanese succeeded in transforming a potentially confrontational situation into one of symbiosis which served to make the interests that were in opposition, the same.

Japan's Search for Natural Resources

As of the end of 1974, Japan was annually opening over one hundred resource-oriented development projects abroad and pouring one-half billion dollars (US) into the same.²⁸ Resource-oriented investments, in terms of cumulative equity investment outflow from Japan, overtook such market-oriented investments as manufacturing and

mercantile activities abroad by the early 1970s.

The emergence of Japan as a processor of raw materials was predicated on the assumption that Japan would be able to procure abroad ever increasing amounts of raw materials in quantities and for prices deemed advantageous. However, by the mid-1960s shortages started to appear. A period of "unreliable" long-term purchase contracts with independent foreign suppliers, coincided with the time when Japanese processing firms were increasing their processing capacity in Japan.²⁹ Consequently, the availability of raw materials became the over-riding concern for business and government.

From 1968 on, there was a proliferation of oil projects abroad.

TABLE 2-1

Emergence of companies engaged in oil exploration outside Japan, 1965-73 ³⁰

Fiscal Year	Number of New Companies Formed	Amount of Investment (Million Yen)
1965 or earlier	3	83,552
1966	3	11,429
1967	1	11,834
1968	2	21,336
1969	5	26,697
1970	6	35,614
1971	8	43,401
1972	5	113,558
1973	9	200,000 ^a
Total	42	547,429

Source: Adapted from Sekyu Shiryo, 1973 (Petroleum statistics 1973; Tokyo: MITI, 1974) pp.94-96.

^aEstimate

In the late 1950s, a group of large trading companies had begun to handle crude oil imports for some of the national companies and by the early 1960s chemicals and petrochemicals had become key products for them. They also saw an opportunity in the field of oil to capitalize on their distinctive organizational capacity,³¹ and in addition, a strong interest in oil exploration had begun to be evident among the major consumers of oil and oil-based products, for example electric utilities, steel manufacturers, and petrochemical processors.

The initial strategy of Japanese exploration companies had three characteristics: they sought the acquisition of knowledge and therefore scattered quickly over the globe; the firms entering into oil exploration were all in oligopolistic industries and consequently sought competitive matching ie. investing in a country where one's competitor is in order to get a share of the advantages and the market; and risk-sharing ie. going into joint-ventures or consortium investments.³²

In the pursuit of secure sources of supplies, the Japanese supplemented straightforward imports with loan-related procurement contracts. The rationale for this was that overseas suppliers repaying borrowed funds to Japanese creditors would be motivated to fulfill the supply contracts they had made.³³ Thus Japanese firms extended loans at lower interest rates than those

available internationally and the Japanese creditor-purchasers hoped they would be rewarded with favourable volume-discount prices for bulk purchases. As these loans were made only to secure preferential access to natural resources, the Japanese creditors often accepted repayment in kind.³⁴ The loans were not only limited to funds, but management skills and the requisite mining technologies were also extended by the Japanese purchasers who guaranteed the Japanese market.

However, the investor-purchasers, eg. the trading companies and manufacturing firms, provided a greater degree of assured access and have been known to obtain greater price discounts compared to Japanese firms dealing in either long-term purchase contracts or loan-related procurement. Moreover, they were also entitled to dividends on the invested equity in the mining subsidiary. The price-discounts and dividends they received from successful mining operations were considered risk premiums for unsuccessful ventures.³⁵ The investor-operator-purchaser, on the other hand, had some distinct advantages, in that he could obtain business and industry information that a firm otherwise could not obtain; his involvement in the operation sensitized him to subtle changes and developments in the industry worldwide; and even a ten-twenty percent rate of self-sufficiency for vital materials was perceived to be far more useful for strengthening a

purchaser's bargaining position than total reliance on outside suppliers.³⁶

For both loan and investment-related projects abroad, between three and seven Japanese firms were often coparticipants. The small size of the average Japanese processing firm meant that one on its own would not use enough of the natural resource to permit economies of scale in overseas operations. The smaller size also implied financial constraint. Even if it could afford to invest in one or two projects, it would not be able to stretch its financial or technological resources to cover similar ventures in other parts of the world.³⁷ Since Japan's resource-oriented investments were concentrated in the LDCs, investors were concerned over growing "resource nationalism" and political uncertainties in host countries. This led them to avoid being locked into one or two sources of supply and the "group approach" or consortium permitted the sharing of all risks and opportunities. Under the direction of the JPDC, Japanese oil prospectors have been grouping together into oil development corporations to be organized for each exploration project abroad.³⁸ As already stated, the consumers of fuel oil, financial institutions and trading companies have also joined the development projects as equity holders.

TABLE 2-2

As of September 1971, the breakdown of combined equity³⁹ capital holdings, totaling 100 billion yen, for 23 oil-related overseas subsidiaries, produced, on the average, the following mosaic partnership among assortments of private and public corporations:

<u>Holder of Equity</u>	<u>Total Capital of 100 Billion Yen combined (for all 23 subsidiaries)</u>
Petroleum Development Public Corp.	21.0%
Oil Explorations and Oil Refiners	23.1
Trading Firms	13.0
Utility, steel and iron firms	14.9
Financial Institutions	7.1
Other manufacturers	20.9
	<u>100.0%</u>

In petrochemicals, we find the same type of investment patterns. Related petrochemical firms and trading companies belonging to the same zaibatsu or banking group participating in joint-ventures.

In the summer of 1974, MITI abandoned its past policy of seeking independence from the oil majors, and instead actively sought ways to interlock Japanese oil interests with those of the US and European based TNCs.⁴⁰ At this time, there were only four Japanese oil projects producing and none of them were fully vertically integrated, however the strategy for integration was in motion.⁴¹ With the desire for vertical integration, came the strategy for transnationalization. The reasons for this are quite explicit in the preceding section on the petroleum industry.

In conclusion, we find the Japanese government playing the role of "initiator, promoter and consensus builder"⁴² but the central role was left up to the private sector. In its "resource diplomacy" post-1973, the Japanese government initiated the making of direct deals, but it was the private companies that concluded them.

As stated at the beginning of this chapter, Japanese petroleum interests in the 1970s were:

- 1) to cooperate with the petro-TNCs
- 2) to cooperate with producing governments in their efforts to industrialize
- 3) to diversify their sources of supply geographically

These were based on the need to increase security of supply. Indonesia and China were logical choices for Japan. They both had complementary economies to Japan, therefore Japan could aid in their industrialization; in Indonesia, Japan could cooperate in joint-ventures with the foreign TNCs; they were both geographically close to Japan and would afford Japan the possibility of obtaining more of its oil from outside the Middle East. In addition, Japanese interest in her Asian neighbours was not something new in Japanese thinking. First there was the Japanese government desire for a "Co-Prosperity Sphere" during World War II and in 1966 a plan was put forward for the "Asia-Pacific Zone" to create a Japanese privileged zone.⁴³

NOTES

¹Yoshi Tsurumi, "Japan", Daedalus:113-127, p.114.

²IDOC, Asia, Oil Politics and the Energy Crisis
60-61 (New York:IDOC International Documentation, 1974)
p.48 (hereafter cited as IDOC, Oil Politics).

³Tsurumi, "Japan", p.114.

⁴IDOC, Oil Politics, p.48.

⁵Tsurumi, "Japan", p.115.

⁶Ibid.

⁷Ibid.

⁸IDOC, Oil Politics, p.48.

⁹Tsurumi, "Japan", p.116.

¹⁰Ibid, p.118.

¹¹M.Y. Yoshino, Japan's Multinational Enterprises
(Cambridge, Mass.:Harvard University Press, 1976) p.43
(hereafter cited as Yoshino, Multinational Enterprises).

¹²Ibid, p.43.

¹³Ibid.

¹⁴IDOC, Oil Politics, p.50.

¹⁵Tsurumi, "Japan", p.118.

¹⁶Ibid, p.119.

¹⁷Ibid, p.120.

¹⁸IDOC, Oil Politics, p.55.

¹⁹Ibid.

²⁰M.A. Adelman, "Is the Oil Shortage Real?"
Foreign Policy 9 (Winter 1973) p.80.

²¹Ibid, p.82.

²²Yuan-li Wu, "Oil Diplomacy: The Economic, Political and Strategic Implications of Japan's Search for Oil", Southeast Asian Spectrum 3:2 (January 1975) p.28 (hereafter cited as Yuan-li Wu, "Oil Diplomacy").

²³Ibid.

²⁴Tsurumi, "Japan", p.119.

²⁵Ibid, p.124.

²⁶Yuan-li Wu, "Oil Diplomacy", p.28.

²⁷Robert Guillaing, The Japanese Challenge, trans. Patrick O'Brian (Philadelphia:J.B.Lippincott Co., 1970) p.202.

²⁸Yoshi Tsurumi, The Japanese are Coming (Cambridge, Mass.:Ballinger Publishing Co., 1976) p.37.

²⁹Ibid, p.40.

³⁰Yoshino, Multinational Enterprises, p.44.

³¹Ibid.

³²Ibid, p.45.

³³Tsurumi, The Japanese are Coming, p.41.

³⁴Ibid.

³⁵Ibid, p.42.

³⁶Ibid, p.43

³⁷Ibid, pp.45-46.

³⁸Ibid, p.47.

³⁹Ibid, p.48.

⁴⁰Ibid, p.64.

⁴¹Yoshino, Multinational Enterprises, p.50.

⁴²Yoshino, Multinational Enterprises, p.58.

⁴³On this subject see Guillain, The Japanese Challenge, p.235 and FEER:Mar.9,1967, p.431.

CHAPTER III

INDONESIA

The Indonesian Economy

Indonesia is an island archipelago in Southeast Asia, inhabited by a population of approximately one hundred and twenty million. Although it has extremely fertile land and rich raw material deposits, this potential wealth has not provided any real basis for domestic economic development.¹ The following brief economic history will provide the background to Indonesia's development policy today.

The Dutch started penetrating the Indonesian economy in the seventeenth century with the Dutch East India Company. The company's role was taken over by the Dutch Colonial State in the nineteenth century and this lasted until Indonesian independence in 1949. The ultimate effect of this penetration was to transform "... a self-subsistent, self-reliant economy into one subordinated to the requirements of Western European capitalist production."² This was accomplished by the destruction of the Indonesian agricultural system and by the creation of an alien plantation system. The economy was geared around the export of cash crops which had the

effect of pushing the peasantry off the land;³ living standards declined; and domestic market needs were met by imports from western Europe. As Dutch goods were dumped on the Indonesian market, the Dutch colonial government placed restrictions on the Indonesian handicraft industry. Therefore, there was a decline in both urban and rural handicraft industries. The unemployment generated by this, and by cash-cropping, was not alleviated by new investments. Thus domestic industry was curtailed almost to eradication.

After a long struggle against the Dutch, Indonesia achieved constitutional independence in 1949. Economic planning in the early post-independence period was along conventional lines. .

It operated within the confines of the distorted economic structure inherited from the Dutch. It was hoped that government returns from taxes, etc. on the foreign companies investing in the raw material sector, together with domestic savings and foreign aid would finance the creation of import-substituting industries, the development of the infrastructure, and an increase in agricultural productivity.⁵

It became clear in the late 1950s that these policies had failed.

Sukarno, who was considered the father of Indonesian independence, instituted "Guided Democracy" in 1957. "Guided Democracy" brought with it state intervention into the economy, in particular in the banking and transport sectors, along with the nationalization of Dutch

enterprises. The aim was to break out of the circle of western domination and construct an independent form of capitalist development. The apotheosis of the new political economy was marked by the Eight-Year Overall Development Plan of 1960 which superseded the previous Five-Year Plan (1956-60).⁶ This strategy also failed. Some of the reasons for the failure were:⁷ 1) formulation of policies were hindered by the contradictory nature of the political alliance that controlled the state -- the army, the PKI (the Communist party), and the political nationalists; 2) the plans that were formulated were confused and arbitrary; 3) over-bureaucratization, corruption and loose planning, restricted the operation of government intervention in banking and transport; 4) the failure to develop domestic production, restrictions on capital investments and imported goods, and the hostility to loans and aid, produced hyperinflation within domestic economic stagnation. Production and development in the oil industry during this period was consistent with the general economic stagnation. In 1960, Indonesian oil production was approximately 410,000 barrels per day (bpd) and this increased to about 475,000 bpd in 1966.⁸ Although there was a small increase in production, development was at a standstill. The Eight-Year Plan did not provide for a rational allocation of scarce resources, but was a consensus-builder whereby the approval of an enormous

number of projects were made with the hopes of pleasing everyone. National unity and political development became the primary emphasis in the Sukarno government. The Dutch colonial government had kept the vast archipelago unified pre-independence, but after the revolution there were a number of armed uprisings and separatist movements against the national government. Therefore, Sukarno believed that national unity deserved the highest priority. In addition, from 1945 on, Indonesian leaders agreed that a just and prosperous society should be the ultimate goal of the people.⁹ Accordingly, there was a decision to be made as to whether to strive for justice and prosperity simultaneously, or whether one deserved priority over the other. Sukarno decided that justice, national unity and politicization should take precedence over pure economics or prosperity. However, the management of economic development produced popular discontent and frustration.

The military coup in October 1965 signalled the end to the independent capitalist development experiment.

The foreign companies nationalized under Sukarno were handed back (free of charge) to their former owners, foreign capital was given absolute freedom of entry into the domestic and raw materials export sectors, the limitations placed on foreign imports were removed, and the government controls over the banking and distributive sectors were rapidly dismantled.¹⁰

The "New Strategy" of the "New Order" was represented in the "stabilization plan" of October 1966 and the Law on Foreign Capital Investment of January 1967. These two laws made Indonesia a foreign investor's paradise. The stabilization plan (adopted on the advice of the IMF) advocated equality of opportunity for domestic and foreign capital to invest in all sectors of the economy and that the preferential treatment that had been given to the public sector be abolished. The Foreign Capital Investment Law permitted tax-free periods of from two to five years; duty-free importation of fixed assets, raw materials or even semi-finished goods etc.¹¹ After the passage of these two laws, President Suharto got together his "development cabinet" or as others have called them the "Berkeley Mafia". Forty western trained Indonesian economists (MIT, Cornell, Berkeley etc.) then drew up the 1969 development plan, Replita I, which had economic growth as its dominant theme. The Development Plan was essentially an extension of the two earlier laws. The main ingredients were accrued returns from the raw material sectors plus vast amounts of foreign aid to finance development. Foreign aid through loans, grants or food shipments were to equal seventy-three percent of development funds.¹² Suharto's oil policy remained essentially the same as Sukarno's. He promoted cooperation with foreign companies under the existing laws. Oil,

the largest foreign exchange earner, obviously had a vital role to play in the intended development of Indonesia. Therefore, we shall now consider the importance of oil in the Indonesian economy.

TABLE 3-1

Indonesian Production of Crude Oil

<u>Year</u>	<u>Barrels per Day</u>
1967	515,000
1968	600,000
1969	742,000
1970	854,000
1971	892,000
1972	1,178,000 ^a
1974	1,500,000 ^b

Sources:^a 1967-72 statistics from John R. Walton, "Development of the Petroleum Industry in Sumatra", Berita Kajian Sumatera 3:2 (May 1974) p.54

^bBIDOC, Oil Politics, p.73

Indonesia is the eighth largest exporter of oil and ranks eleventh globally in terms of production.¹³ Indonesia possesses about two percent (thirteen to fifteen billion barrels) of the world's proven reserves.

In 1967, oil replaced rubber as the most important foreign exchange earner in Indonesia. Since 1971 there has been a remarkably high increase in foreign exchange earnings brought about by oil exports. From 1971-72 they increased by ninety-one percent, and from 1972-73 by seventy-five percent.¹⁴ From 1970-73 the value of Indonesian oil exports increased from US\$308.5 million

to \$1382.5 million, an increase of 4.5 times.¹⁵ With such increases, oil earnings were to be the vehicle for development in the two Five-Year Plans, Replita I and II.

TABLE 3-2

AN ESTIMATE OF INDONESIAN EXPORT DURING REPLITA II¹⁶

(IN US\$ MILLIONS)

	1974/75	1975/76	1976/77	1977/78	1978/79
(a) Oil, net	2,436	2,550	2,700	3,060	3,600
(b) Non-oil	2,046	2,260	2,480	2,790	3,150
TOTAL EXPORTS	4,482	4,810	5,200	5,850	6,750

Source: Department of Information, Republic of Indonesia: Replita II, Indonesia Develops, p.13.

The above projection made by the Indonesian government proved to be an under-estimation. The windfall gains brought on by the oil crisis in 1973 earned Indonesia US\$4,600 million in 1973, which was twice the amount projected, while 1974 saw Indonesia earning US\$8,000 million which was approximately four times the projected amount. Government development plans were heavily dependent on oil industry earnings for their implementation. Although Indonesia's earnings were much higher than expected, the financial collapse of the state oil company Pertamina in 1975 sounded the death knell for these plans.

Pertamina will be discussed further in subsequent pages.

The Indonesian Oil Industry

The earliest account of petroleum in Indonesia dates back to AD 971, when the Chinese court annals of that year recorded that jars of earth oil were brought as tribute to the emperor from Southern Sumatra. However, it was in the Dutch colonial period that Indonesia's modern oil industry got its start.¹⁸

Oil exploration and development rights were granted to oil companies on the concession basis during the Dutch colonial period. The concession rights were valid for anywhere from forty to seventy-five years. This gave them the right to explore, produce and sell oil while they paid land rent on the concession areas, royalty on production and corporate income tax.¹⁹

In 1883, a Dutch tobacco planter took out a concession in North Sumatra which yielded commercial quantities of oil. Financial interests bought this concession from him, and this led to the foundation of the Royal Dutch Company for the Working of Petroleum Wells in the Netherlands Indies, which later became the Royal Dutch Company (formed in 1890).²⁰ Although many other companies became active in the area, Royal Dutch financially penetrated them and quickly became dominant. In 1907 Royal Dutch amalgamated with Shell Transport and

Trading Company which was operating in Eastern Borneo -- thus the Royal Dutch-Shell group had its beginnings in Indonesia.²¹ In 1912 competition began when Standard-Vacuum Oil, an American company which was a subsidiary of Standard Oil (N.J.) and the Vacuum Oil Co. gained concession areas in Sumatra, Java, Borneo and elsewhere.²² In 1925, Stanvac as it came to be called accounted for five percent of Netherland East Indies production, while the Royal Dutch-Shell group had the remaining ninety-five percent.²³ Caltex, a subsidiary of Standard Oil of California and the Texas Co., secured extensive exploration concessions in Central Sumatra in 1931²⁴ and was about to commence commercial production shortly before World War II. By 1938, crude oil production in what was to become Indonesia totalled 7,398,000 metric tons per annum, of this the Royal Dutch-Shell share was seventy-two percent and Stanvac twenty-eight percent.²⁵ At this time there were seven refineries -- three large export refineries and four small refineries that mainly served the local market. "Of the 8,065,000 metric tons of petroleum products manufactured in 1938, 6,015,000 tons went abroad to Southeast Asian markets; and only 1,401,000 tons, or nineteen percent, were used to satisfy domestic demand."²⁶

World War II, with the Japanese invasion of Indonesia in 1942, caused heavy damage to the Indonesian

oil industry. The Dutch "scorched earth" policy damaged fields, pipelines, equipment and refineries and succeeded in limiting Japanese production.²⁷ Allied bombardment and Japanese disregard for proper maintenance of the industry increased the damage.

At the end of World War II, the Japanese handed over the major part of the oil industry to Indonesians. These de facto Indonesian management organizations were not readily willing to return the installations to their legal owners while at the same time many members of the new Indonesian legislative assembly wanted to deny the foreign companies any role in Indonesia.²⁸ A number of the three major's oil fields and refineries were never given back. After the Indonesian government came to power in 1949, the three foreign oil companies underwent severe criticism. Their affluent expatriate staff stood out ostentatiously against the backdrop of an economically disrupted Indonesia.²⁹ However, the great value of the industry to the economy in terms of export earnings and in the development of outlying areas, caused the new government to uphold previous agreements made between the companies and the Dutch government. These agreements called "let alone" were as follows:

They permitted the companies to retain the foreign exchange they received from their sales abroad of products and crude, for an agreed number of years, on condition that they make no demands on the government's foreign exchange fund for the purpose of rebuilding the industry or in any way extending crude production.³⁰

The "let alone" agreements came to an end for Stanvac in 1951, Caltex in 1953, and Royal Dutch-Shell in 1955.³¹ These were followed by agreements which were much the same as the previous ones and they lasted until the 1963 agreement redefined the situation. Prior to 1963, the oil companies had foreign exchange freedoms not accorded to any other foreign owned industry in Indonesia.³²

Article 33 of the 1945 Constitution stated that all the country's natural resources belonged to the people, and a resolution was passed in 1951 suspending the granting of any new lands for concession areas.³³ A committee had been formed after independence to study oil and mining laws in various parts of the world and to draft a new oil law for Indonesia.³⁴ In 1960 the new Indonesian Petroleum Law -- Law #44 was passed.

In effect since that time, it proclaims that all rights to explore for and exploit petroleum resources in Indonesia shall be held only by enterprises organized and chartered by the state, and that these enterprises may carry out these activities themselves or may hire contractors, local or foreign, to assist under contracts which must be approved by the state.³⁵

This law changed the legal status of foreign companies operating in Indonesia. It stated that there would be no more concession rights -- that foreigners could only be contractors, and it effectively nationalized the oil industry. This became nationalization through negotiation rather than expropriation.

The foreign companies that already held oil rights, Shell, Caltex and Stanvac, had to renegotiate their rights to conform to the new law. During the three years of negotiations, the companies attempted to divert nationalist criticism. One move they made was to change the names of their operating companies in Indonesia. They had all had Dutch names and these were replaced by their American titles in an effort to make people forget the colonial past. They also started Indonesianization of oil company personnel along with technical schools and scholarships.³⁶ After approximately three years, "Contracts of Work" were signed in Tokyo by these three companies and Indonesian government representatives. These agreements were profit-sharing, 60:40 in favour of Indonesia; provided for the gradual transfer of marketing and distribution facilities to Indonesia; entailed the relinquishing of concession ownership rights on the part of the companies while they were given new contract areas for thirty years and the right to exploit old areas for another twenty years.³⁷ By this time the positions of the three majors had shifted with Caltex now the foremost producer. This had much to do with the suspension of new concessions in 1951 and the takeovers following the war.

Although the profit division was severe for the majors, it was less severe than the current negotiations for new concessions in the Middle East and Venezuela.³⁸

The gradual transfer of marketing and distributing facilities was regarded positively by the majors for price control had operated in petroleum products since 1945 while inflation made the fixed price absolutely unrealistic. Consequently, losses in this trade had to be subsidized by Shell and Stanvac from their lucrative export business.³⁹ Even the impending loss of their refineries had compensatory aspects. By 1963 evidence indicated that most of their refinery output, especially in gasoline and kerosene, would be absorbed by rising domestic demand and the agreed upon selling price to the domestic market was not particularly attractive when compared to earnings in international trade.⁴⁰ Finally, refineries are very obvious and therefore could become targets of nationalist sentiment. The agreement for Indonesia was both rational and reasonable given Indonesia's nationalist aspirations, backward technology and concern for economic welfare. Indonesia was guaranteed domestic product needs from indigenous petroleum resources; would get a refinery system at agreed prices after Indonesianization of the operating personnel; and was assured a twenty-thirty year period of growth in crude production supported by foreign techniques and finance.⁴¹ However, this honeymoon did not last long. By late 1964, left-wing political pressure was brought to bear through the trade union movement and

elements in the legislature. The large oil companies whose roots were in the colonial past were the last bastions of foreign enterprise in Indonesia.⁴² A crisis was reached in March 1965 when the trade unions demonstrated at oilfields and refineries for the expropriation of these facilities. No actual takeovers occurred, but the Minister of Oil put all the foreign oil companies under the control/supervision of the Republic.⁴³ More political pressure forced the government to accelerate its program of takeover, and by the last day of 1965, Shell formally handed over all its property in Indonesia to the Minister for Oil Affairs while the other two majors continued negotiations.

By 1966, all agreements with foreign oil companies were "production-sharing contracts". The most important aspects of production-sharing were the sharing of production rather than profit, and management and ownership rights were vested in the state oil company, Pertamina. On 10 December 1957, Indonesia created its first national oil company, P.T.Permina,⁴⁴ with the concession area left by Royal Dutch-Shell. In 1961 the name was changed to P.N.Permina. Thereafter two other national oil companies came into being -- namely Pertamina and Permigan. Permigan was dissolved, and Pertamina and Permina consolidated into one company due to unnecessary duplication in the industry. The new name was P.N.Pertamina established in 1968. Ibnu Sutowo was appointed President of the new company

and four other directors were designated by the Minister of Mining. The new Pertamina was to have two roles -- to develop and extract oil directly, and to supervise and control foreign companies working on the production-sharing basis. Offshore and difficult onshore exploration has been contracted out while Pertamina handles the more basic onshore exploration and exploitation itself. This is due to the lack of technology and highly skilled manpower.

In the standard production-sharing contract, the contractor is obligated to provide total financing of the operation and sustain all pre-production risks, including costs. Costs, including project-related equipment brought into Indonesia, are recoverable out of forty percent of crude oil production per year and if expenses exceed forty percent, it may be recovered in succeeding years. The remaining sixty percent of the oil is split sixty-five percent to Indonesia through Pertamina and thirty-five percent for the contractor. At the point of export, the contractor receives title to his share of oil while he is also granted unrestricted rights of maneuverability to and from the contract area and his facilities. With the initiation of commercial production, the contractor is required to contribute (selling at cost plus 20¢ pb for crude and cost plus 10¢ for refinery processing) a portion of his "profit" oil to the Indonesian

domestic market.⁴⁵

Although the contractor is exclusively responsible for furnishing all the foreign exchange, materials, equipment and supplies necessary for the operation - including technical aid and foreign personnel - the contracts state that Pertamina "shall have and be responsible for the management" of petroleum operations.⁴⁶

The "management clause" was the most important point of disagreement between the international majors and the Indonesian government. The majors feared relinquishing their managerial prerogatives to inexperienced public servants while they bore all the financial risks. In addition, but not of any less importance, they were afraid that giving in to one country would necessitate the same type of agreement with the other oil-exporting countries where they were based.⁴⁷ This was due to the fact that in their agreements with other countries they had a "most-favoured nation" clause. The position of the majors forced Indonesia to either omit the clause or get it agreed to by the smaller independent oil firms.

The independents were more amenable to the less favourable financial terms, institutionally less difficult to supervise and more susceptible to the pressures a host country could reasonably be expected to apply to a foreign oil company.⁴⁸

As barriers to entry in the petroleum industry were quite high, the independents were happy to gain a foothold where they could. At the same time, this served the interests

of Indonesia, in that the acceptance of the management clause by a number of independents would foreclose future demands by the majors that the clause be withdrawn.

The first production-sharing agreements were rather loose, consequently they were tightened in 1967 in favour of Indonesia. Two specific changes were -- 1) when production reached a certain level, the production-sharing split of 65:35 would change to 67.5:32.5 in favour of Indonesia; 2) when production surpassed a specified stage, the contracting company would have to invest in building an oil refinery or related petrochemical complex.⁴⁹ The production-sharing contract was Indonesia's answer to controlling foreign investment in a vital industry while gleaning the benefits of foreign capital, technology, expertise and organization.

Production-sharing was the way the government of Indonesia chose to deal with the oil companies, now we must consider the internal or domestic policy.

In 1945, during the period of extreme oil scarcity, the Dutch colonial government set up a board to control the distribution of oil products and prices. The Indonesian government abolished distribution control but retained price control.⁵⁰ From 1950-65, the price of oil products barely changed and this encouraged considerable substitution in heating fuels and transport, while at the same time the official cost-of-living index rose to 15,482 by February

1965 (1953=100).⁵¹ Fixed prices; high uncontrolled consumer demand, relative stagnation in the oil industry, problems in inland distribution and marketing plus hyperinflation produced black marketeers and all sorts of corruption.

To combat this -

President Sukarno himself went the rounds of port terminals, road tanker agents, and petrol stations to admonish the distributive trades for their anti-social behaviour in allowing petroleum products to escape into the black market.⁵²

However it was to no avail -- corruption kept pace with inflation.

The coup in 1965 brought an end to the low fixed prices of petroleum products. As petroleum products had become indispensable by 1965 it was consequently selected as one of the main vehicles for anti-inflationary policies of the new regime.

TABLE 3-3

PETROLEUM PRODUCT PRICES ⁵³ (in old rupiah)					
Dates	Petrol	Kerosene	Automotive diesel oil	Industrial diesel	Fuel oil
1962-1965	4.0	1.5	1.0	1.0	1.0
Nov. 1965	250.0	150.0	150.0	100.0	100.0
Jan. 1966	1000.0	600.0	600.0	400.0	400.0
Jan.21,1966	500.0	300.0			

Sources: Business News, Oct.12,1965,p.12a; and
Monitoring Warta Berita, Djakarta,
Jan.22,1966.

The long-term criteria of resource allocation for fuel within the Indonesian economy during the Sukarno era were abandoned by the Suharto regime in favour of other policies. High prices were used to curb domestic demand including industrial demand, so that a larger share of the throughput would be available for export. Industrial performance and social welfare was to take second place to inflation and balance-of-payment problems.⁵⁴

Pertamina -- the national oil company

The primary objective of Pertamina is to become a TNC. It maintains a training program and special courses through which ninety percent of its skilled category labour passes. Twenty percent of its operating budget goes into this program.⁵⁵ It was hoped that by 1980, Pertamina staff would run all phases of the petroleum industry except for specific jobs contracted to foreign companies and that these positions would be taken over when the thirty-year contracts expire around the year 2000.⁵⁶ Here is where the value of the management clause is most important to Pertamina. Through this clause, the dialogue between Pertamina and the foreign contractors is institutionalized and an educational operational process is triggered.⁵⁷ Therefore, the clause is essentially a vehicle for enhancing the comprehension of petroleum operations. Pertamina's lack of technology and operational

skills nullifies the operational significance of the clause but it serves to diffuse domestic political controversy over who controls the natural resources by creating the appearance of domestic control. In addition, it holds out long-term possibilities of Indonesian control over natural resources with the concurrent dislodgement of expatriates. Lastly, it provides the legal means to prevent the contractors from pursuing policies deemed detrimental to Indonesia.⁵⁸

Indonesian law states that Pertamina cannot expand beyond oil and gas related projects without the consent of the President. This in fact, has not obstructed the expansionist growth of Pertamina into many other facets of the economy.

In 1970, Pertamina purchased the Stanvac Sungei Gerong Refinery and consequently placed all the Indonesian refining facilities under its control.⁵⁹ By 1972, Pertamina operated eight refineries with a capacity of approximately 400,000 bpd and had targeted other major developments.⁶⁰ It was also involved in a number of petrochemical ventures which included LPG (liquified petroleum gas), synthetic fibers, fertilizers and plastics.

In transportation, Pertamina controlled a fleet of forty-seven tankers which was larger than the Indonesian navy.⁶¹ It also had a fleet of aircraft named Pelita which provided transport for oil personnel operating

from Darwin Australia to Northern Sumatra.⁶²

Pertamina had sister companies or joint-ventures concerned with the following -- Tugu Insurance, covering Pertamina but also offering other forms of insurance; a data-processing joint-venture with an American firm; a hospital in Jakarta; guest houses in Bali and Cirebon; an international housing complex; the Oil Center Building in Jakarta; an imported fertilizer packaging plant; and an interest in Krakatau steel.⁶³ These are but some of Pertamina's businesses but they provide the basis for the statement that Pertamina wants to be a transnational corporation, a conglomerate in fact.

The Ministry of Mines of Indonesia gave Pertamina a budget of \$1,900 million for 1974-75 which was approximately half of the national budget.⁶⁴ This however was not enough for expansion as Pertamina's debt burden at the beginning of 1974 was about \$1,500 million with an additional \$500 million expected by the end of the year.⁶⁵

In the 1970s, Pertamina plunged into the international capital markets in its drive for expansion. It borrowed over one billion dollars in short-medium term loans from private institutions and US and Japanese import-export banks. It also received a major \$234 million loan from the Japanese government for oil development.⁶⁶ Excessive borrowing precipitated a financial crisis. Pertamina's estimated assets at the end of 1974 were

\$3,100 million while its debts were \$2,700 million. As of March 1975, Pertamina owed \$3.1 billion in foreign loans and over-due oil revenue payments to the government as well as \$113 million overdue to local contractors.⁶⁷

How could the national oil company get into such a financial position? To understand this we must look at Ibnu Sutowo, President-Director of Pertamina, in terms of accountability, as most of these loans were made on the basis of his signature alone.

Pertamina and Ibnu Sutowo were almost interchangeable terms. A good friend of President Suharto, his rise to power coincided with the emergence of Pertamina as "the" national oil company. By 1973 he was considered second in the national hierarchy.⁶⁸ He brought to life the state oil company and became an international figure.

... at home playing in the Bob Hope Golf Tournament, hosting New Yorkers at the Ramayana (the Indonesian restaurant he built in Manhattan), attending OPEC meetings as a governor, bargaining hard in Japan, on Bali escorting guests to the posh Pertamina beach houses, at Houston's Astronaut Hotel where in 1972 he hosted a lavish celebration of his fifteen years in the oil business..., and highly regarded in the Muslim world.⁶⁹

Although Indonesia has one of the lowest standards of living in the world, Sutowo's perspective was that of an industrial magnate as he rode in his Rolls Royce Silver Cloud between his office and his multi-mansioned family living area. According to Sutowo:

In the oil business we deal with some of the largest and richest companies in the world. It is simply not psychologically possible for men who wear thread-bare clothing and who ride in old cars to negotiate satisfactorily with men who earn \$50,000 a year and fly by company jet aircraft.⁷⁰

Consequently, the forty thousand direct employees of Pertamina, had a wage scale and benefits which far exceeded that of the average Indonesian and the Pertamina emblem flew from airplanes, buildings, houses and cars. Pertamina became "a state within a state". When questioned on the status of himself and Pertamina Sutowo said that his signature made contracts into law, but the law says that the state must approve all contracts. He also admitted that he did not have to follow the rules set for the state.⁷¹

In January 1970, a Commission of Four was set up to investigate corruption. Its final report criticized Pertamina on a variety of counts. These included:⁷²

- 1) that Pertamina had evaded its national tax payments which were supposed to equal fifty-five percent of its total profits; 2) that the company violated the law which prohibited state enterprises from depositing liquid assets in foreign banks by depositing in the Chase Manhattan Bank and the First National City Bank in Jakarta; 3) that state enterprises cannot have subsidiaries, a list of these have already been put forth; and 4) that Pertamina's Board of Directors were not to assume other functions

except by permission of the Minister of Mines and Sutowo had assumed numerous high positions in Pertamina subsidiaries. In fact, he headed twenty-two separate organizations of the company.⁷³

This report was followed by the passage of an Indonesian parliamentary bill which became popularly known as the Pertamina Law in August 1971.⁷⁴ A board of commissioners was appointed to watch over Pertamina and the company was to be run by a board consisting of Sutowo and up to five others. However, this seeming reining in of Pertamina was in fact an illusion. The board never met as a group until the financial crisis of 1973.

The weakness of controls on Pertamina were evident in 1973. The IMF and the Intergovernmental Group on Indonesia (IGGI)⁷⁵, which represented the donor countries to whom Indonesia owed billions of dollars, set a limit on short and medium term borrowing for Indonesia as part of an agreement to let her debts slide. With Sutowo's approval, Pertamina borrowed with one fell stroke above the limit set for the entire country of Indonesia. He was clearly in violation of the new Pertamina Law, as only his approval was given without government clearance. However, Sutowo emerged victorious while his need for money mortgaged Indonesia's oil industry.

In early 1975, the company's activities were

widely diversified and chaotic and the government had to step in to try and rectify the situation. Measures were taken to make Pertamina sound when the First Republic Bank of Dallas disclosed an overdue repayment by Pertamina in March 1975.⁷⁶ The Bank of Indonesia took over and managed the debt. Various Pertamina projects were slowed down or phased out while further loans were negotiated. The finale came in March 1976 with the discharge of Sutowo and the appointment of Piet Harjono as Acting President-Director of Pertamina.⁷⁷

At Piet Haryono's installation ceremony, President Suharto reminded those present that Pertamina's problems had wide repercussions affecting not only the company itself, but had created a series of consequences affecting the state revenues, foreign exchange reserves, foreign loans, and domestic credits, as well as the general implementation of the national-development programs.⁷⁸

Ex-President Sutowo flew off to California for an extended vacation in February 1976.⁷⁹

Japan and Indonesia

Indonesia's imports from Japan are on the increase, both relatively and absolutely. This is due to Indonesia's development of its industrial sector -- it needs more capital goods and raw materials. Indonesia's exports to Japan are increasing substantially as well. For certain products, the percentages exceed half of the total of Indonesian exports. In oil, Japan takes approximately

seventy-five percent of Indonesian crude, and in timber eighty-five to eighty-seven percent. The Japanese then re-export part of these imports to Indonesia mainly in the form of finished products.⁸⁰

TABLE 3-4

INDONESIA'S TRADE WITH JAPAN, 1967-1971

	(US\$ million)				
	1967	1968	1969	1970	1971
a Total Indonesian Imports	649.2	715.8	780.7	1,001.5	1,173.9
b Total imports from Japan	181.9	159.2	225.9	294.5	389.6
Percentage (a/b)	28.1	22.2	29.0	29.4	33.2
c Total Indonesian Exports	665.4	730.8	853.7	1,160.6	1,246.9
d Total exports to Japan	194.5	179.6	255.9	452.3	529.5
Percentage (c/d)	29.2	24.6	29.9	38.9	42.5

Source: Bank Indonesia, Indonesian Statistical Bulletin, March 1973.

The Japanese "big ten" TNCs are imbedded in the Indonesian economy. They establish joint-ventures, make straight investments, and/or open branches or liason offices. They import, export, produce as well as distribute manufactured products. They exploit petroleum (jointly with other TNCs) and other natural resources, or trade in these primary commodities.⁸¹

Business between Japan and Indonesia, as well as

the rest of Southeast Asia is mainly handled by the Japanese TNCs. The "big ten" control nearly sixty-eight percent of the total Japanese imports, mainly of raw materials. This gives them a powerful position in the exporting country and vis-a-vis Japanese manufacturers.⁸² In comparison to these consortiums of trading and manufacturing firms, Indonesian enterprises with the exception of Pertamina, are generally small or medium sized. Therefore, in international business as well as in the world markets, their bargaining position is relatively weak. In regard to Indonesia as a market for Japanese products -- although the Japanese firms are not permitted to have their own distribution apparatus within Indonesia, they get around this by establishing offices that represent their firms which are in a position to distribute the products to dealers, who in turn distribute them to customers.⁸³

Thus Indonesia is not only a major supplier of raw materials to Japan, but is also becoming an expanding base for Japanese manufactured products, as well as for Japanese financial institutions. Practically all the big Japanese banks are represented in Indonesia, either as branches (eg. Bank of Tokyo), joint-ventures with state banks or the private sector (eg. Fuji Bank) or as liaison offices.

The Japanese are particularly heavy investors in the textile industry (40.1%) and resource-oriented industries (forestry, 13.1%, fishing 14.4%).⁸⁴ These take the form of joint-ventures where the agreement generally favours the Japanese. The Japanese partner may ask for royalties; management and technical fees; a majority in management; and the purchase of raw materials such as chemical feedstocks from Japan.⁸⁵ Although all joint-venture agreements in Indonesia embody a clause whereby the majority shareholding should gradually shift to Indonesian hands, in practice the Japanese secure a number of provisions which delay effectively any such transfer of ownership and control to the Indonesian party. One of these is the retention of technical know-how by the Japanese partner. The generally limited capital of the Indonesian partner may also present another obstacle.⁸⁶ The Japanese TNCs, through access to the Japanese financial market and other international financial institutions, have often provided their Indonesian partners with medium-term loans as well as operating capital. Such loans are channelled through the TNCs instead of being granted directly by the Japanese banks. This consequently strengthens the control of the Japanese partner.

Japanese Advancement into the Indonesian Oil Industry

Although Indonesia has nationalized its oil industry, it is still essentially locked into the international petroleum system. On the Japanese side, her petroleum interests in Southeast Asia have three primary foci -- 1) a transit region for oil coming from the Middle East and Africa; 2) a zone of production that presently supplies twenty percent of Japanese crude and could supply more; 3) a region of growing importance for petroleum "downstream activities" including refining and petrochemical complexes, many financed with Japanese capital.⁸⁷ In 1972-1973, Japan was taking more than fifty percent of Indonesian production in crude oil alone, and more than eighty percent of Indonesia's refined production exports.⁸⁸ However, there was a decrease in Japanese imports of Indonesian oil from 41,989 thousand kiloliters in 1973 to 39,405 thousand kiloliters in 1974.⁸⁹ The reasons for this slump were the economic recession in Japan with the Japanese consequently using less oil, plus the high price of Indonesian sweet crude. The premium Japan was willing to pay for the low sulphur content diminished with the recession.

Offshore exploration which has been intensively underway since 1969 had brought about thirty-four foreign oil companies to Indonesia by 1974. Almost all the operations

FIGURE 3

FIGURE 4

Source: For Figures 3 & 4, Sevinc Carlson, Indonesia's Oil (Boulder, Colorado: Westview Press, 1977) p.45.

were multiple partnerships with Pertamina getting its share through production-sharing or as an active partner. However, the operating company was the key element, overseeing the actual exploration effort. These were mostly American firms with a small number of others. The Japanese were extensively involved as non-operating partners in many of the contracts.⁹⁰

At the beginning of the 1960s, when Indonesia was attempting to break the majors' hold in its oil industry, Japanese companies were looking for areas where they could establish themselves. Hence, the North Sumatra Oil Development Corporation was the first company to conclude a production-sharing agreement between Japan and Indonesia. It was signed in April 1960.⁹¹ Investment in this corporation was made by seventeen of the twenty members of the Japan Petroleum League (the remaining three were the foreign companies -- Shell, Caltex and Stanvac); thirteen machinery manufacturers; three electric power companies; six steel and metal companies; nine trading firms and two others.⁹² All of these companies had a great interest in getting cheap and stable oil supplies. The Japanese government showed strong interest in the scheme by promising preferable financial treatment and the Overseas Economic Co-operation Fund financed the North Sumatra project. The company's project was to redevelop the former Shell oil fields in North Sumatra.⁹³

The company did not invest per se but gave a credit which was to be paid off in production -- forty percent yearly until repayment was finished. The project was completed in 1972. This heralded the first official Japanese financial support for Indonesian oil development projects.

The Japanese went into offshore exploration next in a joint-venture with Total, a French company, and Japex Indonesia. They explored along the coast of East Kalimantan, where they discovered the Handil and Bekapai oil fields.⁹⁴ A joint-venture between Union Oil (US) and Japex found the most important discovery in recent years off Kalimantan. Another Japanese joint-venture exploring off Kalimantan and Java -- Kyushu Sekiyu and Ashland (US) have not found oil yet. C. Itoh, one of the largest Japanese trading companies, has two subsidiaries engaged in oil exploration in Indonesia. In Southeastern Sumatra, the Japan Low Sulphur Oil Co. (JALOSCO) is involved in a joint-venture, while C.I. Energy Development Co. (CIEDC) invested along with seven other companies in a project in the Kasim oil field in Irian Jaya.⁹⁵ In most of these projects the Japanese are minority shareholders. One reason is the size of Japanese firms in comparison to the major international oil companies. For example CIECO only has assets of \$6.2 million.⁹⁶ Another reason is that Japanese companies

on the whole are fairly new to the exploration business, and therefore their investment has only recently begun to approach the expenditures of the majors. In addition, the Japanese have to tie up with foreign companies because of their lack of technology in oil development, especially in the technology required for offshore exploration. It has been suggested that the technology gap between Japan and the majors is fifty years.⁹⁷ Therefore, in order to bridge this gap it is beneficial to the Japanese to have foreign partners. Aside from direct involvement in production-sharing contracts, various Japanese companies have been hired under contract by Pertamina to help in exploration and development in different parts of Indonesia, while they at the same time sell their technology to Pertamina.

Another source of Japanese input into Indonesia's petroleum industry is in the refining and petrochemical sector. Prime Minister Tanaka's strategy of decentralizing industry in 1972 was to shift raw material using industries such as steel, petroleum refining and petrochemicals to developing countries and consequently Japan would only produce highly processed goods whose production process would not pollute the environment.⁹⁸ The reasons for this decision were: land shortage in Japan; increasingly high environmental standards; and high labour costs in Japan relative to developing countries. With this the

2

Japanese started looking abroad.

In petrochemicals, Southeast Asia has been Japan's best customer. It takes approximately thirty-nine percent of Japan's total exports. Many of the importers were in fact Japanese joint-venture factories. On the other hand Japan also imports petrochemical products from Indonesia. In response to the 1973 decision, the Japanese companies started building chemical and petrochemical complexes in Southeast Asia. A thirty-seven million dollar credit had already been extended to Pertamina to build a refinery at Dumai by the Far East Oil Trading Co. and Sumitomo Shoji Kaisha. Part of the arrangement was that the costs for machinery, equipment and construction would be reimbursed by shipments of heavy fuel oil to Japan.⁹⁹ Two other complexes were under consideration for Indonesia, both with Pertamina participation. These complexes were for plastics and fit in with the apparent decision of the Japanese companies to establish a complete plastics production capability in Southeast Asia.¹⁰⁰ If all the projects that Japan has initiated in Southeast Asia materialize "they will give the Japanese dominance in Asian chemicals for a long time to come" Chemical Week observed. Some of the less obvious advantages in petroleum related downstream activities are a natural corollary of production-sharing contracts, under which the producing nations receives its share in oil. This means Japan does

not have to store such a large surplus, as much of the oil belongs to and is controlled by the Southeast Asian country concerned. A country such as Indonesia then, incurs the obligation to erect large oil tank farms, maintain stocks to feed into the refinery pipelines, and then sell the production to Japanese industries at market prices.¹⁰¹ Although this would imply a certain vulnerability for Japan in terms of boycotts, it will be shown later that the Indonesians are in a far more dependent position regarding their relations with Japan, thus they have more to lose.

Another important consideration in Japanese thinking regarding petroleum involves the routing of its Middle East oil through the Straits of Malacca. In order to gain practical assurances of its rights to use the Straits, it has attempted to work out a satisfactory navigational control system with the littoral countries. Supplementary to this, it has tried to get these nations directly involved in the supply route. Several Japanese oil companies -- Maruzen Oil, Daikyo Oil and Mitsubishi Oil together with Nisso-Iwai Trading Company as coordinator, concluded an agreement with Pertamina in late 1973 to build a 150,000 bd refinery on Batam Island at a cost of two hundred million dollars to refine Middle East crude for the Japanese market.¹⁰² In addition a one billion dollar loan was offered by the Japan Export-Import Bank

together with several private Japanese banks to Pertamina. This was used to construct a harbour and liquifying facilities in North Sumatra and East Kalimantan and repayment was to be in the form of 7.5 million tons of liquified natural gas annually. To handle this venture the Japanese formed a company, the Japan-Indonesia LNG Co. which consisted of Chubu Electric Power, Kansai Electric Power, Nippon Steel and Osaka Gas.¹⁰³ With this loan the Japanese hoped to secure a stable supply of gas for the next twenty years. To ease the congestion in the Malacca Straits, and solve the Japanese problem of finding a site to build a storage base, two Japanese trading companies submitted a plan to Pertamina to construct a huge oil storage base at Semangka on the northern tip of Sumatra. The investment would be \$259.7 million but it would store ten million tons of crude from the Middle East.¹⁰⁴ The Japanese also hoped to cooperate with Pertamina in the construction of a petrochemical complex in Northern Sumatra along the Malacca Straits. It was to produce ethylene and other intermediate products using local Sumatran natural gas as its raw material while most of the output was to be exported to Japan.¹⁰⁵ Based on the Sunda Straits storage area, the Japanese developed a strategy whereby they would use many of their biggest tankers on shuttles to and from the Persian Gulf, hoping to cut their costs, but also

hoping to minimize any controversy over its large tankers passing through Southeast Asian waters.¹⁰⁶ This type of refining and storage setup allows Japan to keep more oil east of the Malacca Straits so that if there is ever again a cutback in supplies from the Middle East, Japan will have a large supply that can be drawn on quickly.¹⁰⁷

Loans for security of supplies formed the basis for Japan-Indonesia agreements. In September 1973, Indonesian production topped 1.4 mbd for the first time. However, this as well as new production had been fully committed, mainly to the Japanese on long-term contracts.¹⁰⁸

In 1972 Japan and Indonesia agreed to a precedent setting agreement between governments of oil producing and consuming nations. The deal formally signed on 30 March 1973 called for a \$234 million loan in yen from Japan to the Indonesian government for petroleum development. This allowed Pertamina to get around the limits on borrowing set by the IMF. In exchange, Indonesia guaranteed the sale of 36.4 mb of crude to Japan over ten years beginning in 1973.¹⁰⁹ This agreement became known as the "political loan" in Japan. The Japanese government's credit did not involve the purchase of crude, although there was an agreed supply stipulated. It was to be repaid on extremely easy terms: three percent interest over twenty-five years with a seven year grace period. The crude itself was to be paid for at the market price at the time of the purchase.

This reference to market prices, however, does not mean that this is what Japan will have to pay¹¹⁰, for the price will be reached through consultations between Indonesian and Japanese officials. Therefore, the price will depend on who is in the better bargaining position at the time.

In a separate agreement, Japanese private companies provided one hundred million dollars as advance payment for the crude oil. The Japan-Indonesia Petroleum Co. was set up to handle this oil with Pertamina controlling fifty percent and various Japanese firms led by Toyota with twenty-six percent controlling the rest. This was the second such company created by the two countries that bypassed the western oil companies. The first, Far East Oil, was established in 1965 to move Sumatran oil.¹¹¹ The same type of direct deals have been worked out with Pertamina regarding LNG, and as has already been stated, through this Japan will have tied up the bulk of Indonesia's production for the next twenty years. In 1975, the Japanese and American banks rescued Pertamina by giving it huge loan packages to meet its enormous \$1.5 billion short-term debt. Due to the company's financial position, the projected budget **surplus for Indonesia** failed to materialize and development plans had to be scrapped.

Summary of Costs and Benefits regarding Foreign Participation

With the end of World War II the foreign controlled oil industry was ostentatiously active and affluent within a poor disrupted economy. Nationalist feelings were running high as Indonesia tried to shake off its colonial past. The oil companies represented the last bastion of foreign control and in the eyes of the nationalists represented the imperialist designs of the colonial countries. However, the benefits of the industry could not be underestimated in the economy of Indonesia in terms of export earnings and the development of outlying areas. Right from the start the new Indonesian government had to deal with this equation -- 1) if they gave back the oilfields and refineries taken over by Indonesians after the war, the support of the left would be lost 2) if they kept the old agreements with the oil companies, then foreigners would be retaining control of the lucrative resource industry 3) if the oil companies kept control the industry would remain export-oriented instead of being made to serve Indonesia domestically. These costs and benefits were made and essentially came down to a question of national priorities. For Sukarno these were national unity -- therefore the left couldn't be lost, social justice and indigenous industrialization. Consequently a new answer had to be sought regarding the position of the oil companies in Indonesia. A long period of study

produced the production-sharing agreement. In this manner, Indonesian state companies owned the means of production; a learning process was institutionalized; dependence on the majors was lessened; the oil industry would grow with the benefits of foreign finance and technology; outlying areas and infrastructure would continue to be developed and the Indonesians would retain a greater part of the profits to be made from oil. Production-sharing gave the appearance at least of domestic control to satisfy the nationalistic aspirations of the people while gleaning the benefits of the foreign presence. However, there was a cost involved here too -- this was time. From 1938-1963 there was no new exploration activity and this naturally had consequences regarding production expansion. In addition, the low domestic fixed price for oil also had its costs in terms of domestic energy consumption. Suharto maintained, production-sharing, but as his priority was economic growth he reoriented the industry toward export as it had been in the colonial period and used international prices for domestic petroleum and thereby depressed consumer demand. As increased export earnings were perceived as the desirable goal, it would be necessary to increase production and development. Therefore, loans and credit as those made by the Japanese were regarded as benefits as they allowed for more rapid revitalization of the industry. However, the costs involved

/proved enormous. Indonesia's oil futures were mortgaged, the disparities between the rich and the poor were exacerbated and the Japanese monopsonist advantage regarding Indonesia was increased.

Analysis within the Theoretical Framework

The first dimension, target, establishes how sensitive and prominent the oil industry is in the national economy, prestige and political tradition.

Indonesian nationalism culminated with formal independence in 1949. From the time of the first constitution, it was made clear that the natural resources of the country were for the people, and were to be owned and managed by the people or their representatives. Indonesia's oil industry had been dominated by three foreign companies -- Shell, Caltex and Stanvac, and they supplied almost all the domestic kerosene for cooking, petroleum for cars, and heavy oil for industry. To break this dependency, Indonesia instituted new oil laws and took over the industry, nominally at least. Therefore, for the past thirty years, the national political tradition has been one of nationalism and independence with the oil industry as the heralding light.

Indonesia's Pertamina with its associated production-sharing contracts, became a mark of national prestige. Other third world countries studied and adopted in various forms

the structure of the Indonesian oil industry and production-sharing. Pertamina became "the" successful state enterprise in Asia and its director could get financing almost at the drop of a hat. However, the downfall of Sutowo and the financial crisis of Pertamina has "...diminished the prestige of the so-called Indonesian model in the eyes of the region's energy planners."¹¹² The production-sharing concept which was never as radical in practice as it was in theory, has had its shortcomings made apparent. Pertamina which had all the aspects of an integrated successful oil company, has seemingly mortgaged the nation's future and Indonesia's oil production has remained highly dependent on foreign contractors. "Capital and technology have been bought with a growing stream of oil exports, with very high per barrel profits going to the contractors."¹¹³

As was stated earlier, oil has been the most important foreign exchange earner in Indonesia since 1967. The progressive increase in oil prices from 1970 on brought more exchange than had been expected and with this even larger development plans were projected. As Pertamina was supposed to turn over fifty-five percent of its profit to the national government, government revenue expenditures were highly dependent on this money. The corporation tax on oil companies yielded thirty-six percent of the total domestic revenues in 1973-74, fifty-five percent in 1974-75 and an estimated sixty-two percent for 1975-76.¹¹⁴ The fact that the 1974-75 budget of Pertamina was half the

total national budget exemplifies the importance placed on the industry in the domestic economy.

The supply of extensive credit against oil futures for expansion gave Pertamina enough rope to hang itself rather than have the oil industry become the backbone of Indonesian development. As we saw, Pertamina evaded its taxes and kept pouring money into its own expansion. When Sutowo stepped down in April 1975, Pertamina had a debt of approximately US\$10,000 million¹¹⁵ and the payments due on overseas borrowings were approaching twenty percent of expected export earnings. To meet Pertamina's short-term debts, bankers had put together a US\$1,000 million loan in 1975 plus an additional US\$370 million Japanese loan was made to allow completion of the export-oriented LNG projects. However, due to lack of financing, several domestic projects had to be put aside. These projects like fertilizer and petrochemical plants would have integrated local resources with local markets and therefore would have had beneficial linkage effects.¹¹⁶ Indonesia, then, cannot have a rational energy plan until it has met its immediate obligations to its creditors.

Thus, instead of oil being the vehicle for development, the management of the industry has brought Indonesia to the point once again of being the most indebted of the Southeast Asian countries. In order to meet its debts, Indonesia must at least maintain and hopefully expand its

current production. But Indonesia is not a great oil power with lots of reserves and new production will have to be brought on continuously to sustain Indonesia's income. Consequently, new incentives have had to be given to exploration companies. Even if substantial new production is brought on stream, Indonesia has another problem - that of marketing. Japan, its principal outlet, took twenty-five percent less in 1975 than it did in 1974. The apparently permanent obstacles are the presence of comparable Chinese crude at cheaper prices and the reluctance of "Japanese refiners to commit themselves to high-wax varieties with big fuel oil yields like those most common in Indonesia."¹¹⁷ There are problems with waxy crudes in both transportation and refining. The pipelines and tankers need to be heated to prevent solidification (there are other processes also) and in the refineries special equipment has to be installed for separating the oil. All of this adds to the cost of transport and manufacturing.¹¹⁸

The second dimension, that of setting, involves the national perceptions of the advantages of the foreign contributions to the industry and the perceptions of the cost involved in doing without or replacing these advantages. During the Sukarno era it became apparent what the costs of economic nationalism were in terms of the oil industry -- it hardly expanded at all. It would seem though,

that this was not necessarily a product of a certain kind of development or political leaning, but rather economic mismanagement and inefficient planning.

The Suharto takeover and its subsequent general open-door economic policy, showed a major shift in perception as to the benefits to be gleaned from foreign participation and the costs which would be involved. The first production-sharing contracts amounted to almost equal joint-maximization. The Indonesians wanted to diversify the foreign oil companies working within their boundaries and consequently lessen their dependence while owning the means of production and institutionalizing a learning process. The independent companies wanted to gain a foothold in an industry where barriers to entry had been very high and realized that in fact the management clause was a legal tool for learning and would not pose significant interference in the running of their business. In other words, both parties got the most they could hope for given the circumstances.

The Arab-Israeli War of 1967 underlined Indonesia's position in the global petroleum situation and consequently production-sharing contracts were tightened in favour of Indonesia. The 1973 oil crisis served to trigger foreign interest in Indonesia's oil industry development. Thus Pertamina continued to expand by leaps and bounds financed by the international community, especially the Japanese.

The international situation saved Pertamina as its expansion, corruption and mismanagement became evident. Therefore, in terms of bargaining power regarding production-sharing contracts, Indonesia held the high cards from approximately 1970-1974. However, by 1975-1976, the immediate global situation had shifted once again to enough or more than enough oil to meet demand, and the Middle East oil-producing countries still allowed foreign oil companies to make greater profits per barrel than they could in Indonesia. At this time, Indonesia's domestic economic situation, caused to a large extent by the virtual bankruptcy of Pertamina, necessitated an even larger government take from the oil industry in order to meet its debts to its creditors. Whether this situation coloured the perceptions of the Indonesians regarding the international oil situation and who held the bargaining power or not, the fact was that in July 1976, the Indonesian government unilaterally revised the after-cost production-sharing split with foreign contractors from 65:35 in its favour to 85:15.

The "violated" contracts still left companies substantial profit margins - in the vicinity of US\$1.15 - \$1.35 a barrel. But the move bruised confidence in future relationships, and foreign operators wasted little time demonstrating their displeasure. From eleven drilling rigs working offshore in July, the number had fallen to four by the end of September, and two of those were expected to leave Indonesian waters.¹¹⁹

Therefore, the Indonesian perception of costs and advantages of foreign participation in its oil industry and associated bargaining power has gone through substantial shifts since the end of the colonial period.

In line with Moran's framework, we now look at the policy formation process, and in particular at those interest groups which were best served. Oil industry policies in Indonesia served Suharto, the army, Sutowo and the urban upper middle class.

President Sukarno tried to keep the army in line by limiting its financial resources. At the same time, Sutowo used Sumatran oil operation funds to nurse the army towards the coup of 1965. The army and Suharto did not forget his contribution and Sutowo continued in the same manner. Sutowo donated "...television stations, mosques, airports, dormitories and hotels to army posts and towns throughout Indonesia".¹²⁰ It would seem as if he were doing his own development work to strengthen his power base. However, his extra-legal method of operating has already been demonstrated in the section on accountability and it is the Suharto - Sutowo link which is of importance here.

As has been mentioned, Sutowo's rise coincided with Pertamina becoming "the" state oil company. As the state oil company came alive under the hand of Sutowo,

Suharto requested Sutowo's help in finishing his Veteran's Building in Jakarta and the construction of the Krakatau steel plant. With Sutowo managing projects close to Suharto's heart, Suharto tended to be reciprocally responsive to Pertamina projects. Another important aspect of these projects was that Sutowo was not given a budget to finance them. As such he had to resort to loans and this contributed to Pertamina's heavy debt burden.¹²¹ Accordingly, the quid pro quo between army, Suharto and Sutowo allowed Sutowo to emerge unscathed and still in control of Pertamina even after his mismanagement and corruption were exposed.

The path of oil development, and development in general, that was put forward by Suharto and Sutowo benefitted the upper middle class. Production has been pushed for export over local consumption. Indonesia consumes less than thirteen percent of the oil it produces and this cannot expand very much as the major portion of the remaining oil is tied up in long-term contracts with the Japanese. In Indonesia, crude oil for domestic consumption is valued at "realized" prices or what the market will bear.¹²² Rather than basing the value of petroleum for internal energy demand on the costs of production, the international valuation based on the Middle East oil it imports, the major oil consumers, and the wealthy industrial countries is used. Therefore,

the Indonesian masses* absorb the negative impact of more expensive energy. Thus, local consumption is depressed by raising market prices. When it is realized that about three percent of the Indonesian population is extremely wealthy and between eight to fifteen percent are of the middle class while the remaining eighty percent live at subsistence level or would live beneath it without family help, it becomes obvious who can pay for the energy that is available.¹²³ "While the state company begins to produce high octane gasoline, 60% of Jakarta's population walks to work because it cannot afford four cents to ride over-crowded buses."¹²⁴ Cars are bought by the elite, traffic jams are created and the international institutions are suggesting "... that more money should be spent to accommodate vehicles, rather than less money spent on vehicles, their energy and their other supportive needs."¹²⁵ In addition, the high capital-intensiveness of the oil industry has done nothing to improve the unemployment situation. In Jakarta for example, four out of the five million people are either unemployed, underemployed or grossly underpaid. It is the same small elite that benefits by being able to go into associated joint-ventures and take advantage of the investment incentives.

* The masses are dependent on petroleum products for cooking and heating.

... the military themselves; through controlling the key compradore roles in the export sector, by obtaining preferential treatment as "national entrepreneurs", and by dominating the government's "management" of the internal economy, are able to make colossal financial gains...¹²⁶

Jakarta symbolizes development for this elite, with its luxurious villas, gambling casinos "racetracks and thriving brothels, its emporia stuffed with imported goods, and its rigorous deportation of the unsightly miserables."¹²⁷

Bargaining

The Japanese have been vital to the expansion of the Indonesian petroleum industry. Beginning with signing the first production-sharing contract, the Japanese have yearly increased their domination of Indonesian resources. This has mainly been done through loans and credit. In general an American businessman stated

But the bankers keep thrusting money on Pertamina, dreaming up ways for Pertamina to spend more. When I ask them why they do it when they know Pertamina can't pay, they tell me they'll get their return on interest rates and refinancing packages.. It has to do also with the knowledge that those to whom Pertamina owes money can direct the flow of oil to a large extent.¹²⁸

Consequently, Japan was also in the best position to sell her services and technology to Pertamina. This in turn ties up Pertamina from another angle and consolidates the Japanese position. In short, capital and technology for oil.

To reiterate, Japan has three main interests in Southeast Asia regarding petroleum. 1) a transit region

for oil coming from the Middle East and Africa; 2) a zone of production that presently supplies twenty percent of Japanese crude and could supply more; 3) a region of growing importance for petroleum "downstream" operations including refining and petrochemical complexes.

If we look at the loan made by Japan to Indonesia of \$234 million in March 1973, we can see the bargaining position of the two countries in a specific situation and see how Japan managed to further two out of her three objectives in the area. First consideration would be the Malacca Straits as a transit region.

Japan desired the internationalization of the Malacca Straits as ninety percent of Middle Eastern oil was carried by tankers passing through them.¹²⁹ Indonesia and Malaysia on the other hand, declared the Straits internal waterways as they fell within their twelve mile territorial limit.¹³⁰ One of the steps they planned to take was to ban tankers which were 200,000 tons and over because of the danger of collision and oil spills. If this occurred, it would cause an economic loss to Japan as most of the tankers of this size were destined for her ports, and if her ships had to go through the Lombok-Makassar Straits the cost of shipping would be greater as it is a longer route and therefore the price of oil would rise.¹³¹ Thus Japan needed either the maintenance of the status quo or the internationalization of the Straits.

As such, the loan to Indonesia represented a trade-off in order to assure Indonesian support for "innocent passage" or the status quo. Indonesia and Malaysia did not enforce their claims and restrict the passage of supertankers.

The second issue -- that of a zone of production for Japan was also involved. Indonesia guaranteed the sale of 36.4 mb of crude to Japan over ten years. In addition the loan was to be used for Indonesian oil development which was obviously favourable in terms of the Japanese. For the more oil Indonesia produced, the greater the possibility for Japanese diversification from her dependency on Middle East oil.

The loan was consumed by Pertamina to finance seventeen oil-related projects. All projects were co-operated on by Pertamina and Japanese oil, trading and steel companies. Pertamina was the developer while the Japanese were hired to supply technology and equipment. In a separate arrangement, Japanese private companies, provided \$100 million as advance payment for the crude oil and the Japan-Indonesia Petroleum Co. was set up to handle the oil with Pertamina controlling fifty percent and various Japanese firms led by Toyota with twenty-six percent controlling the rest.

Consequently, we can see who had the most bargaining power. The private Japanese firms involved are many of the

largest and Japanese big business already controlled sixty-eight percent of Japanese imports from Indonesia. Therefore, the market concentration in the hands of a few assures bargaining strength in their ventures with Pertamina. Their goods and services are hired as part of the agreement. Therefore, with this loan the Japanese were creditors-part-operators-purchasers. This must be seen in opposition to the weak position of Pertamina at this time. Sutowo wanted money for expansion and development but the IGGI and IMF had set limits on Indonesian borrowing. It would seem then that the fact of Pertamina trying to borrow above the ceiling from a member country of the IGGI would necessitate considerable incentives for the Japanese from the Indonesian side. In fact, the Japanese terms for the loan were harder than those used by the IGGI. This is not to say that Indonesia had no bargaining power at the time. It did for the Japanese were most anxious to see the Indonesian oil industry expand plus have the Malacca Straits issue decided. Therefore in the bargaining that took place, the Japanese were pressured into financing a hydroelectric dam in Indonesia as part of the bargaining trade-off.¹³² Accordingly, given the various Japanese inputs in regard to these loans we can see that the agreement on price through discussion would give the Japanese a much stronger bargaining position unless of course there was some new

worldwide oil crisis.

Given the above, we find Japan involved in keeping Pertamina afloat financially and giving it soft loans to expand production and exploration. We have Japan as a non-operating partner in the exploitation of oil resources. We have Japan buying or getting crude through production-sharing, amounting to eighty percent of Indonesia's output. We have Japan tying up Indonesia's supply of LNG through long-term contracts. We find Japanese joint-ventures dominating the petrochemical industry in Indonesia where they are producing products that fit in with Japan's industrial strategy and in places, eg. the Straits, where Japan has strategic interests. We see the Japanese joint-ventures dominating Indonesia's textile industry which uses the synthetic fibers produced by the petrochemical complexes.

If we were only to look at the production-sharing contracts between Japan and Indonesia in order to determine bargaining power we would miss the strength of the Japanese position. All of the above inputs fall beneath an umbrella of friendly personal relationships between the Japanese and Indonesian leaders. Japanese investment was not handled in a routine fashion, through the proper agencies, but special facilities were created by President Suharto's assistants creating a triangular configuration of corrupt government officials, an entrepreneurial elite and the

Japanese. 133

It could be asserted that the relationship between Japan and Indonesia is mutually beneficial -- Pertamina gains capital and technology while the Japanese receive a secure supply of oil and LNG. However, that assertion is only possible if one equates Pertamina with the Indonesian people. Pertamina is a state oil company controlling the oil industry for the Indonesian people, but does it really? Is Pertamina in fact independent or is it more dependent than ever? Has the power of control of the Indonesians over their own oil industry been neutralized? I submit that through "loyal buyer-seller ties", through long-term contracts, and through joint-financing, the Indonesians have in effect been neutralized and integrated into the international oil system, especially Japan's system. I also suggest that Pertamina, in opposition to being representative of the Indonesian people, in fact acts and desires to be an integrated oil company on a global scale. Instead of using its own oil for indigenous development, it sells the crude to foreigners. The extra foreign exchange earned (the higher price is because Indonesian crude has a low sulphur content and therefore is highly desirable) does not go back to the people in terms of overall development, but is used to expand Pertamina. The undesirability of this type of action was underscored

during the 1973 energy crisis. Because Indonesia exports its own oil, it was dependent on Middle Eastern oil for its own industries. Therefore, it suffered cutbacks in oil supplies while its own oil supplies continued to be exported. In addition, as a consequence of using Middle Eastern oil, its refineries were built to accommodate oil of this type rather than its own low sulphur content crude. We see Pertamina acting in conjunction with Japan on various projects which do not benefit the whole of Indonesian society the way that other investments might. For example, the petrochemical plants are used to produce plastics and synthetic fibers instead of chemical fertilizers which would increase agricultural production and thereby keep the price of food down. Although it has been said that Indonesia was approaching self-sufficiency in chemical fertilizers¹³⁴ that is only when one looks at the demand generated by those who can afford to pay the price. All in all we find Pertamina acting as an agent of polarization in the Indonesian economy, and as a TNC with great reliance on Japan regarding its own development.

As has become evident in this chapter, Indonesia is in a dependent relationship regarding Japan, and just because Pertamina seemed to be living with it quite well, that is not to say that the rest of the Indonesians liked it. This is supported by the riots that greeted

Prime Minister Tanaka when he visited Indonesia in January 1974. The visit provided a catalyst for an outburst of economic nationalism.¹³⁵ Thus, although there were other reasons for the demonstrations, Japan's obvious involvement in the Indonesian economy stimulated an outcry against "Japanese Imperialism". It was said that Japan exports pollution and exploits cheap labour. That its import-substituting industries have high import content and limited spillover effects. These issues were of course compounded by a legacy of bad memories from the Second World War and Japan's military occupation of Southeast Asia between 1941-1945. The 1950s are remembered as the period of "blood debt settlement" where Japan acted hard-headed and stingy regarding reparations. Now Japan is being viewed as the new colonial power and the new colonizers -- they are called "bananas" -- their skin is yellow, but their mentality is white.¹³⁶

We have looked at an industry which is vital to Indonesia -- it ranks highest in the national economy and very high in terms of national prestige and political tradition. In terms of short-term bargaining power, it has seen numerous shifts given the changes of risk and uncertainty. With each new expansion and financial crisis the bargaining power would shift to the foreigner, most

times the Japanese. As the international situation changed or learning occurred it would change in favour of the Indonesians. But the overall effect is one of Indonesian neutralization and dependency.

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CHAPTER IV

THE PEOPLES REPUBLIC OF CHINA

For eleven years, Chinese crude oil production increased at an average annual rate of 24.6 percent, going from 6.4 million tons in 1963 to 20 million tons in 1970, and nearly 70 million tons in 1974, the latter including exports of 5 million tons to Japan. However, in 1976, the petroleum sector growth rate was only twelve percent. This has been explained by some, as due to the radical left being in control of the government. Its criticism of Teng Hsiao-ping's natural resource export policy led it to downgrade the importance of petroleum in the nation's overall development strategy.¹ In addition, the offshore areas adjacent to China are ranked as the most promising of the unexplored oil regions of the world. Peking has teased Japan with hints that it might get ten percent of future production on a regular basis, and some Japanese analysts see a chance for considerably more, as China's need for foreign exchange multiplies.

Problems in China's oil industry are common to other Chinese industrial sectors -- most serious is a lag in the technology necessary for the development of

offshore oil. Until 1973, China seemed content "to combine the native and foreign technologies". Since then, however, considerable emphasis has been placed on purchasing oil extraction and petrochemical facilities.

As a socialist country with a basic philosophy of self-reliance, China has been wary of foreign entanglements. Self-reliance, though, is not seclusion. Arrangements based on "equality and mutual benefit" are acceptable - perhaps including production sharing, service contracts, and other techniques that do not involve foreign equity interest.

China's interest in exporting oil demonstrates the way in which China uses foreign trade as an instrument of foreign policy. China is concerned with blocking Soviet overtures to Japan and Japanese joint-ventures with South Korea and Taiwan in the oil exploration field. Japan is also a source of modern technology, that is geographically close to China, while China is a market for Japanese technology and a source of oil to Japan. China and Japan are in dispute themselves over certain areas of the continental shelf. Therefore a certain amount of cooperation regarding the needs and desires of each, regarding technology and oil, could limit the possibility of potential conflict in the area.

By looking at the Chinese petroleum sector and its relations with Japan, we will try to determine whether the relationship is one of mutual interdependence, or in other words Chinese independence as opposed to a dependent situation. In order to put the subject in context, the first section will consist of the history of Chinese developmental strategy. Part two looks at the acquisition of foreign technology, part three presents the case study of the Chinese petroleum industry and Japan, and then an assessment will be made in terms of the bargaining framework set forth at the beginning of this thesis.

China's Development Strategy

In the Peoples Republic of China (PRC), economic development has been a central and sustained concern of the decision-makers. Issues of general social policy have been deeply intertwined with the debate on economic development strategy. This strategy has not remained the same throughout the lifespan of the PRC, but has gone through various changes of emphasis and kind. As one of the subjects of concern in this paper is the acquisition of foreign technology, a close look at the industrial sector during the various phases of development policy will afford the clearest view of the policy conflicts involved.

1949-1958: The Soviet model was copied and the

emphasis was on heavy industry. The technology was capital-intensive and was imported from the Soviet Union. The goal in this period was rapid economic growth.

1958-1961: During this period the approach changed dramatically. The Great Leap Forward emphasized mass involvement and mobilization. Local initiative and the development of rural small-scale industries were encouraged and it was at this point that the concept of "walking on two legs" gained prominence. This meant balanced development between rural and urban, and between light industry and heavy industry. Both capital-intensive and labour-intensive industries were to grow, but the greater emphasis was placed on the latter. During this period the importance of the technical expert declined.

1961-1966: Soviet aid was severed by this time and self-reliance became the catchphrase. Self-reliance does not mean autarchy. It means intercourse with other countries but not dependence. It calls for the Chinese to develop their own country, albeit with the use of foreign technology. There was a boost in indigenous research, and the prestige of the expert was revived. China began to import foreign technology in the form of equipment, machinery and complete plants from western Europe and Japan.

1966-1971: Egalitarianism was the principal goal. Scientists and engineers were accused of elitism and of

being the forerunners of a return to capitalism. This time period of course encompassed the Great Proletarian Cultural Revolution. The emphasis was placed on worker innovation, and while the import of foreign technology continued, it was drastically reduced. However, during the Cultural Revolution, a major aspect of intra-party factionalism was focused on the degree to which China should absorb foreign technology to further its development goals. The adoption of an "open door" policy in 1969 indicated a new willingness to accelerate the PRC's modernization goals. This of course must be evaluated in terms of the Sino-Soviet border conflict of 1969.²

1971-1975: The importation of sophisticated technology increased and the policy of walking on two legs appeared again.³ During this period the PRC was reasonably successful in meeting its targets and providing for its priority needs. It opened its economy to commercial and technological relations with the west and Japan. Political normalization within the country, and increased requirements for imports from the industrialized countries, together encouraged the modification of China's economic isolation.⁴ The Chinese were purchasing large numbers of complete plants and industrial complexes to enhance output in half a dozen basic industries, primarily metallurgy, petrochemicals and energy. Machinery imports rose more rapidly in these years than in any previous period. China's

own production of machinery and equipment was now so large, that imported technology represented only a small fraction (six to eight percent) of its overall technology accretion. However, qualitatively, technology imports were a vital factor in the development of the more sophisticated sectors (eg. petrochemicals) of China's industrial production system.⁵

The ability of the central planners to control the commodity composition of imports, multiplied the effectiveness of even this relatively small volume of trade in implementing their development policies.⁶

1976-1977: During this period, China suffered another internal upheaval due to the deaths of both Mao Tse-tung and Chou En-lai. In simplistic terms, the power struggle that followed pitted the radicals against the moderates. Initially, the radicals held the reins of the government and consequently there was a downplay of foreign trade and technology acquisitions. However, subsequent to this, the moderates took over with complete control and purged the radicals from the state hierarchy. The consequent economic policy became again more "open door" with a view to rapid industrialization and economic growth. This included more imports of plants and technology from the west and Japan. Teng Hsiao-ping's economic line which exemplified the moderate's posture, favoured large-scale expansion of China's oil industry so that exports could be accelerated. Exports were to help finance the

importation of capital equipment which would occupy a critical place in the nation's development scheme.⁷

Industrial production in China grew at an average annual rate of thirteen percent from 1949-1974. However, there were different growth periods. From 1949-1950 there was a growth spurt of twenty-two percent, while from 1960-1974 the average was six percent. An eight to ten percent average is projected from 1974 to the end of the decade.⁸ These figures should be viewed as indicative of the various phases.

The late Premier Chou En-lai singled out the Fifth Five-Year Plan period (1976-1980) as a crucial time for the Chinese attainment of "front rank status" by the end of the century. He pinpointed the growth of grain production over population growth as the essential economic problem of this period. The degree of success acquired in dropping the birthrate and raising agricultural production would be the important determinants of the rate of industrial growth. These factors, among others, would influence the amount of investment resources that could be spared to expand and modernize heavy industry.⁹ This, however, must be viewed in the following context.

Arranging the national economy in the order of priorities of agriculture, light industry, heavy industry does not mean agriculture and light industry receiving the largest shares in the allocation of funds and materials. It means meeting the needs of agricultural and light industry first

and foremost, and arranging for heavy industry on the basis of the state of agriculture and light industry. In actual effect, heavy industry will still receive a larger share of funds and materials than agriculture and light industry, for it is the manufacturer of items of production and the supplier of equipment for agriculture and light industry... It is an objective law that priority is given to the development of the department producing the means of production. Taking industry as the leading factor means primarily taking heavy industry as the leading factor.¹⁰

The Acquisition of Foreign Technology in China

On regarding the entire range of Chinese industry, it appears that the highly structured process of internal diffusion is a far more important source of technological advance than foreign technology. Only the most advanced plants and activities received this input. Much of the time it was used for training and demonstration as well as for increased output. This was evident from the first petrochemical plants bought abroad. A short-run retardation of growth seemed to be acceptable to the Chinese leadership in order to attain the long-run social goals of "mass participation" and self-reliance.¹¹ At present it would seem that this emphasis is being minimized.

Various sorts of production coexist in China at this time -- scientific laboratory industry, urban industry and rural industry.¹² However, interest in and access to foreign technology is principally limited to urban industry. Of this sector, it is the large-scale, centrally controlled, capital goods plants that

benefit the most.

The Chinese acquire foreign technology in three significant forms. These are industrial exhibitions, prototype copying and the importation of complete plants.

Almost all the industrialized exporting nations have taken part in industrial exhibitions in China. These shows have proliferated in recent years. Between 1971-1974, thirty-two were held and six more were planned for 1975.¹³ These ventures are costly for the participants and are low in commercial value. However, the idea of the "vast China market" keeps them coming. Japan itself held one national exhibition and six specialized ones, between 1971-1975. For the Chinese, these shows are an opportunity to receive free technological lessons -- seminars are held, there are movies and demonstrations, and technical data and glossy catalogues are distributed. Here they make their search for relevant foreign technologies and are offered the purchase of display models at good prices "for purposes of analysis". What this means is "reverse" engineering and copying. These exhibits have also served to introduce millions of Chinese people to the idea of using things foreign which implies a modification of the concept of strict self-reliance.

Prototype copying is used extensively in the PRC but it does have certain limitations. The technological gaps between the originator and copier are oftentimes great,

and absorbing it into an unsophisticated industry is often not feasible. Due to this difficulty, foreign technicians are being permitted in China once again. This is most relevant in the erection and start-up of complete plant purchases.

The principal form of technological acquisition, is the importation of complete plants.¹⁴ Contracts worth approximately \$2.7 billion¹⁵ have been signed and the plants were to be delivered through 1977. A few key industries are the purchase recipients: petrochemicals, steel, power, petroleum and mining. In the petrochemical industry they are for fertilizer for agriculture, man-made fibers for the textile industry, and petroleum based plastics for numerous purposes. These are ultra-modern enterprises which will allow China to make great strides in production efficiency and product quality.

Turnkey plants had been imported from the Soviet Union during the PRC's first developmental phase. These contracts included design which encompassed the selection of premises, the collection of planning data, methodology and planning itself; the manufacture and supply of equipment; initial operation; and the free provision of technical know-how. Chinese workers went to the Soviet Union where they were given practical training in Soviet industries, while the Soviet technical advisors were seconded to Chinese enterprises.¹⁶

In 1963 the first complete plant was purchased from Japan, and in 1963-1964, eight more plants were bought from western Europe. The terms of sale included a ten to twenty-five percent downpayment, five years to pay, and an interest rate of between five to six percent. Supervision of construction was included in the purchase, as were installation and start-up by the foreign technicians, and technical training for the Chinese personnel who were to take over the plant.

There were differences between the transfer involved in the purchase of turnkey operations between those from the Soviet Union and those from the west. The Soviet Union provided for participation of Chinese engineers at the design stage, or for technical assistance to Chinese designers in the construction of military plants. From current western and Japanese purchases, the Chinese do not get such direct assistance in the development of indigenous design capability. Therefore, it can be surmised, that in the most advanced fields of technology, the Chinese design capability would be limited to copying imported prototypes.¹⁷

Due to the urgency of improving and expanding production in some key industries, as emphasized by Chou En-lai, and because of the difficulties encountered in the 1960's -- the withdrawal of Soviet aid and technicians; the consequences of the Great Leap Forward; the Cultural

Revolution -- all which retarded the growth of industry and the economy, the Chinese shifted strategy. Instead of importing a smattering of model plants, they now) turned to buying entire industrial complexes, at times, on a massive scale. Thus they have entered a new phase in their plant purchases. These plants have been purchased on "deferred payment" plans, which is essentially credit from the foreign country with a very low interest rate of around six percent.

The purchase of complete plants with design services can often lead a country down the road of technological dependence. That is because the know-how, the reasons for certain decisions regarding processes etc. is not transferred. In China, the kind of terms associated with this type of dependence are curtailed. For one thing, the central planners control the sales in the domestic market and thus foreign suppliers have no option but to negotiate with the state trading corporations. Therefore, there is no competition among Chinese manufacturers for them to profit from. Market restrictions are not an important consideration, due to the fact that the technologies sold are all essentially for the domestic market. In addition, the attraction of the potential China market encourages foreign suppliers to have less restrictive terms, at least initially. This is supported by their eagerness to put on exhibitions in China, and to

receive Chinese technical and trade missions, in spite of the acknowledged practise in China of unlicensed copying. Lastly, the Chinese negotiators are very well informed regarding market prices etc. and therefore cannot be taken advantage of through ignorance.

However by purchasing capital goods beyond their own manufacturing capabilities, the Chinese have tended to become dependent on external sources for spare parts and components.¹⁸ This was a problem regarding the synthetic textile plants the Chinese bought from the Japanese. This was regarded as a cost to the Chinese because they could not copy the plant nor substitute domestic intermediary feedstocks for the imported ones.

The Development of China's Petroleum Industry

One of the authors recalls asking former Secretary of State Dean Acheson in 1958 whether China could ever become a great power. Reflecting the accepted wisdom of the era, Acheson said that he was dubious about the prospect, because the country lacked the requisite mineral resources, especially oil.¹⁹

1 B.C. was the beginning of the use of oil in China. She was the first country in the world to have an oil well and this was three hundred years before the first one in North America and Europe. The Chinese apparently also used pipes made of bamboo for the transport of gas before anyone else.²⁰ In spite of this, oil development in its modern sense, did not take place in China until the early 1950s.²¹ This fact in itself is really not

unusual, for the time lapse can be seen with other Chinese inventions, eg. gunpowder.

When the Chinese Communist Party (CCP) came to power, they immediately emphasized the petroleum industry. In the First Five-Year Plan (1953-1957), almost two-thirds of the entire national budget for energy was earmarked for the development of oil resources.²² About fifty percent went toward exploration, while another twenty percent went into the refining industry. An eminent Chinese geologist, Li Szu-kuang (1899-1971) reportedly proved that western petroleum geology was not applicable to the Chinese geological structure, and that China was not in fact poor in oil. He was said to have held back his findings during the previous regime for fear of what would happen to the oil resources. He demonstrated that at least in the case of China, oil can be present in inland basins and platforms of continental sedimentary deposits, as opposed to marine sedimentary deposits, as generally comprise oil centers elsewhere.²³ As the Chinese have put it -

For three-quarters of a century before today's socialist China came into being, the United States and British oil monopolies dumped their products into our country at enormous profit, ruthlessly interfered in our internal affairs, and used their oil as a club over the heads of the Chinese people. "No possibility of commercial oil deposits exists", they said of China as they tightened their economic and political domination.

But China rose in revolt against the bullying of imperialism and the treachery of its internal allies.

Swept out with the trash were the robber oil companies and their foreign oil. China will never produce oil, they had said. The Chinese people proved them wrong.²⁴

Thus the legacy of imperialism stimulated the growth of the Chinese petroleum industry.

Throughout the pre-1949 period, annual production of crude oil in China rarely exceeded 100,000 tons and eighty-five to ninety percent of its oil requirements were imported. The drilling of an oil well in 1907 in the northern Shensi province marked the beginning of the oil industry. However, by the 1930s little progress had been made.

1949-1952: The activities in the petroleum industry were directed towards the rehabilitation and restoration of existing facilities. There was also a significant study made of the potential of the industry to prepare for its expansion. Oil imports from the Soviet Union were fifty to seventy percent of the petroleum consumption in China.

1953-1957: First Five-Year Plan. This plan for the petroleum industry focused on the exploration for additional natural crude reserves. The production capacity of existing wells was to be increased as was the refining capacity. Due to the exploration activities, reserves increased from less than thirty million tons of natural crude oil to more than one hundred million tons in 1957. The imports of oil from the Soviet Union remained essentially the same as in the previous period.

1958-1962: Second Five-Year Plan. The first half of this plan phase emphasized the development of small oil fields. This must be viewed in the context of the Great Leap Forward and all that it signified. In the second half however, the Chinese went back to searching for large oil fields. Proven reserves doubled and crude output grew to the five to six million tons established for the second plan, and the rate of growth, thirty-two percent exceeded that of the previous period of 27.3 percent. The dependence on foreign oil was reduced and in 1963 basic self-sufficiency was achieved. The discovery of Ta-Ch'ing in 1960 and the discovery of reserves in northeast China meant that China had commercially valuable oil resources located reasonably close to the industrial and population centers of the northeast and east. Transportation costs for the oil industry fell and prospects for oil exports brightened.

1963-Present: Self-sufficiency. In 1963, the PRC produced only 6.4 million tons of crude, and oil imports supplied twenty-one percent of the oil consumed. However, by 1974 crude output had risen to sixty-five million tons, and China no longer depended on imports. They did however import some small amounts of oil, but these were either as part of trade agreements or because of distribution problems within China. The constraints of inadequate oil supplies no longer affected the pace of economic development and oil exports had also emerged as a major source of

foreign exchange.²⁵ Current exploration is being concentrated in existing fields and in the Pohai Gulf. They have drilled several wells in the Gulf and it is probable that oil is already being produced there. The Chinese have also started in South China near Canton, and are exploring in the Yellow Sea area that adjoins Pohai.²⁶

According to the OPEC Annual Review and Record of 1975²⁷, Chinese production rose 11.4 percent to 1.27 mbd compared with 1.14 mbd in 1974. About 100,000 bd of 1975 production was reportedly derived from oil shale and coal. The domestic demand for crude in China in 1975 was 1.118 mbd which meant an exportable surplus of about 152,000 bd, some of which was going to Japan. Domestic consumption was up from the 1974 figure of 984,000 bd. However, in international terms, China still ranks below the hundredth place in a league table of 175 countries in terms of per capita energy consumption.²⁸ Proven reserves at the year's end were estimated at 17.2 billion barrels of oil and 19.4 trillion cubic feet of gas.

In 1974, oil accounted for seventeen percent of the primary energy produced in China. This was up from two percent in 1957 and eleven percent in 1970. China is the world's fourth largest energy consumer and the domestic demand for petroleum is increasing as coal is gradually replaced as the primary fuel source.²⁹ Industry and transport were the largest customers while

agriculture was taking an increasing share. Agricultural consumption which was nine percent in 1957 is fifteen to twenty percent today. In 1957, the PRC relied on coal for about 95 percent of its primary energy, hydro 2 percent, oil 1.9 percent, and natural gas 1 percent. In 1974 coal accounted for 63 percent, hydro 2.15 percent, and oil and natural gas 18 percent each. China is the world's fifth largest producer of natural gas.³⁰ Natural gas production rose from 17,400 million cubic meters in 1970 to 45,000 million cubic meters in 1973, and increased sharply again in the two succeeding years.³¹ This domestic changeover has ramifications for China's exportable surplus (see p.139 for table of exportable surplus).

At present the volume of oil exports is largely determined by the amount of crude oil available in excess of refined products. But this is changing because the basic Chinese philosophy of foreign trade does not regard export as an end in itself, but as a means by which to pay for essential imports.³² Therefore, the determining factors of the amount exported is becoming the total quantity of imports required and the terms of trade between exports and imports. Exports of crude rose to more than four million tons in 1974 and should have exceeded eight million tons in 1975, earning China more than \$700 million. If PRC exports reach levels predicted by some Japanese sources they could earn the following amounts at

TABLE 4-1

ESTIMATE OF THE EXPORTABLE SURPLUS OF CRUDE OIL
(Million Metric Tons)

	I Oil Production	II Vol. req'd for domestic Consumption	III (I-II)	IV Gross Exportable Surplus 92% of III	V Addition to Inventory*	VI Net Exportable Surplus (IV-III)
1974	65.3	55.3	10.0	9.2	2.3	6.9
1975	78.4	67.8	10.6	9.7	3.1	5.6
1976	94.0	80.9	13.1	12.1	3.3	8.8
1977	112.8	94.9	17.9	16.5	3.5	13.0
1978	135.4	109.7	25.7	23.7	3.7	20.0
1979	162.5	125.3	37.2	34.2	3.9	30.3
1980	195.0	141.9	53.1	48.8	4.2	44.6

*Addition to inventory is calculated at one-quarter of the increase in domestic consumption over preceding year.

Source: Yuan-li Wu, "The PRC as an Oil Exporter", Southeast Asian Spectrum 4-2 (Jan.-Mar. 1976) p.5.

\$12.85 pb in the future: 1978 - \$4 billion (45 million metric tons); 1985 - \$9 billion (100 million metric tons); and 1988 - \$12 billion (135 million metric tons). By 1990 China may join Saudi Arabia, Iran, the United States and the Soviet Union as one of the five major oil producing nations if a Japanese estimate of production of 450 million metric tons is exceeded.³³

Since 1974, the PRC has invested heavily in oil and natural gas pipelines, and the expansion of port and handling facilities, in addition to buying or building larger tankers. Self-reliance again has been the theme for much of the inputs. China recently completed its first modern deep-water oil port for tankers of 100,000 tons in Talien. The surveying, designing and construction of the port were done entirely through self-reliance using Chinese materials and equipment.³⁴ The Talien Hungchi Shipyard also built China's first oil-drilling platform and three tankers of 24,000 tons.³⁵ These investments indicate an expansion of oil exports. In regard to natural gas, in 1976, officials of China's Petroleum and Natural Gas Development Corporation, told the Japanese that their present output of natural gas was well above domestic requirements and consequently were interested in exporting the surplus.³⁶

However, technological problems restrain oil export growth. The high paraffin content of Chinese crude

means that the consumers must subject their refineries to costly modifications unless they are willing to use the crude as fuel oil. Supplementary to this, the inability of Chinese ports to handle tankers in excess of 100,000 tons makes transportation costs high.³⁷ An example of this would be the case of Manila. Manila found that it was "paying the equivalent of US 65¢ a barrel to ship the oil from Tsingtao, while Middle Eastern crude costs only US 50¢ a barrel on a much longer run because of the favourable economy of supertankers."³⁸ Another important factor determining the fate of China's regional oil exports is the competition of Indonesian crude of a comparable nature.

As oil is essentially for domestic consumption in China, it is of importance to know the priorities that guide oil policy internally. It would seem that the major concern of the Chinese government is that of the standard of living.

... the present purchasing price of agricultural and sideline products is double that of 1950. But the price at which peasants buy chemical fertilizers, insecticides, diesel oil and other inputs is a third to two-thirds lower than that of 1950. The loss incurred by raising the price at which the State buys grain and the fixed price at which rice and flour have been sold on the retail market over the years is borne by the central treasury.³⁹

The style or type of development concerning the oilfields is also demonstrative of the PRC attitude toward self-reliance. We will take Ta-ch'ing, China's largest oilfield which produces one-third of China's ninety million

ton output, as an example. Aside from being an oilfield, Ta-ch'ing is also a commune which comprises technicians, workers and their families. The commune members undertake agriculture, forestry, animal husbandry, side occupations and fisheries.⁴⁰ Consequently, they have been able to combine industry with agriculture, and town with country. "Ta-ch'ing represents today as much an ideological symbol as a technological model".⁴¹

"Learn from Ta-ch'ing" has become the red banner for industry and the Chinese people in general. A national conference on "Learning from Ta-ch'ing in Industry" was called by the Central Committee of the CCP in April 1977. It opened at Ta-ch'ing oilfield with Premier Hua Kuo-feng personally presiding, and was the largest conference of its kind since the founding of the PRC.⁴² The state policy regarding oil development was expressed by the State Planning Commissioner when he said that China needs to develop ten more fields the size of Ta-ch'ing before the end of the century, and that China would need to import "necessary" foreign oil technology to accomplish this goal.⁴³

The Refining Industry

By 1960, with assistance from the Soviet Union and Eastern Europe, China had expanded the extremely limited refining installations taken over in 1949, into a rudimentary refining industry. The level of technology was comparable to that of the United States in the 1930s.

By 1960, the Chinese could produce about ninety varieties of refined products compared to about ten in the early years.⁴⁴ However, China remained dependent on imports for certain high quality or technology products. In spite of limited investment in the refining industry prior to 1960, considerable effort was put into research and training. Pilot plants were set up for some advanced processes, and design work was undertaken for others. In the early 1960s, after the development of Ta-ch'ing, China began to modernize its refining industry. As Soviet assistance was no longer available, China turned to the west and Japan for refinery equipment and technology.⁴⁵

Probably the greatest impact on China's refining industry in the early 1960s came from Cuba. The Chinese were apparently given access to technical data on facilities and were most likely assisted by Cuban engineers. Subsequently, catalytic cracking units and platformers began to appear throughout China.⁴⁶ After 1965 the pace of construction increased markedly. This included two show-piece refineries built without foreign assistance. Peking has never given an absolute figure for total refining capacity. However, it is estimated that this capacity in 1974 was forty-seven million tons.⁴⁷ This is insufficient for processing the entire output of Chinese crude. The amount of foreign exchange necessary to erect a refining capacity equal to Chinese output is beyond the means of

China at present. The refining industry is comparable today to the United States in the late 1950's. Existing facilities can produce a complete range of products and a variety of feedstocks for the petrochemical industry. More than 160 different products are available as compared with 90 in 1960. Pumps, generators, turbines, mining equipment, petrochemical plants and machinery for them, have been imported from Europe and Japan to a considerable extent,⁴⁸ and petrochemicals such as synthetic fibers, synthetic rubber and plastics are being produced.

For reasons of security, a number of Chinese refining facilities are built underground -- this is the case at Ta-ch'ing. There has been an emphasis on synthetics as China has the main feedstock, oil, and synthetic fiber use in textiles would free cotton growing land for grain production. A positive way of industry serving agriculture. The chemical fertilizer industry serves the same purpose, and in South China, the total output increased 5.7 fold from 1965-1975 and nitrogenous fertilizer increased 74 fold.⁴⁹ As China's petroleum refining is essentially for the domestic market, the schedule of which refineries will export refined products is arranged by the state.⁵⁰

Sino-Japanese Relations

Japan has become the PRC's leading trade partner and accounts for about twenty percent of China's foreign

trade turnover.⁵¹ In recent years, economic and political factors have facilitated rapid expansion in this trade. Their basic economies are complementary. Japan requires raw materials and considers China the logical supplier of some of its needs. On the Chinese side, foreign trade planners, have placed a high priority on imports of the kind of machinery, equipment and industrial manufactures which Japan has the capacity to export. Since 1972, bilateral trade has escalated from \$1.1 billion to \$3.8 billion in 1975.⁵² Geographical proximity plays an important role in considerations of trade for it makes transportation costs smaller. In addition, political relations between the two governments are very important. To a much greater degree than other third world countries, China's foreign trade has been shaped by its general foreign policy objectives. Consequently, Sino-Japanese commercial relations have been linked to the diplomatic interactions of the four great powers in Asia -- Japan, the United States, the Soviet Union and China.⁵³ Commercial relations have been a centerpiece of the efforts of both the Chinese and Soviet governments to win support for their respective positions from Japan in the Sino-Soviet rivalry. Political implications will be discussed further in subsequent pages.

China's use of foreign commercial relations for political purposes is best illustrated by its trade policy toward Japan prior to the establishment of diplomatic relations.

In 1960 a number of Japanese firms and Chinese officials initiated "friendship trade". This consisted of trade between "friendly firms" (ie, those that accepted the PRC's economic and political principles) and the China Foreign Trade Organization. A more formal avenue was opened in 1962, when a private five-year trade agreement was signed by Chinese officials and Japanese business interests. This later came to be known as "memorandum trade". This trade was limited to Japanese companies that accepted certain political conditions, the three trade principles laid down by Chou En-lai: 1) Japan must not adopt a hostile attitude to the PRC; 2) the companies must not join in any conspiracy to create two Chinas; 3) the companies must not hinder the normalization of Sino-Japanese relations. These can be read to have implications regarding the Soviet Union and Taiwan, and in a sense are reminiscent of OPEC's business practices. These agreements were superseded by the 1974 trade agreement.⁵⁴

With the establishment of diplomatic relations between Japan and the PRC in September 1972, the political basis for expansion of commercial relations was provided. This was followed in January 1974 by a bilateral trade agreement which resolved a number of legal and practical problems in the Sino-Japanese commercial relationship.⁵⁵ Aside from providing for a reciprocal extension of most favoured nation treatment in the matter of tariffs,

domestic taxes and fees, it also set guidelines for payments in trade transactions. Other provisions called for the promotion of technical exchanges and the holding of trade fairs. However, the notable omissions were:

1) to the disappointment of the Japanese, no permission was made on the entry of Japanese businessmen into China and their legal status while residing in China.⁵⁶ This in fact, typifies the Chinese policy of self-reliance in another fashion. By this omission the Chinese have managed to let the Japanese in while keeping them out. Moreover, it is obvious that China would not want a foreign entrepreneurial community living within its borders with legal status. It could have a negative impact on the ideological morale of the Chinese masses. 2) No provision was made for the protection of industrial ownership rights. The concept of patents is alien to the Chinese.⁵⁷ They maintain that technology, whether, invented in China or imported from abroad, belongs to the people, and thus, must not be restricted. Japanese businessmen, of course, coming from a totally opposite ideological perspective, have reported great difficulty in making the Chinese understand the various restrictions related to patents. However, they have succeeded in inserting into individual contracts a stipulation that certain technical information should not be transferred to third parties. This can be viewed as a partial "sellout" by the PRC, but it can be justified

ideologically as a necessary compromise according to the theory of contradictions. As the principal contradiction at this time was the Soviet Union, it was acceptable to make compromise agreements with the capitalist countries. For the principal contradiction is of primary importance and everything else is secondary to it. Hence, through this China would become strong and be in a better position to confront the revisionist Soviet Union. 3) Another unresolved problem is pricing. While the agreement provides generally for trade based on "equality and mutual benefit" and proper international prices, it offers no specific guidelines.⁵⁸ This problem manifested itself regarding oil. China believes in high prices for raw materials and lower ones for manufactured goods. The ideological premise for this follows:

Local independence would highlight western dependence on raw materials, and would highlight the west's "exploitation" policies. The price western countries would have to pay for this independence would not only provide "economic justice" for the rural states previously "exploited" but would promote the decay of western economies which were regarded as being on the brink of disintegration, and so weaken the headquarters of the forces opposed to the cause of proletarian progress. As the headquarters weakened, internal liberation revolutionary forces in the industrial-imperial states would rise to help give the death-knock to imperialism, and the engulfment of the "reactionary forces" who were holding back natural Communist man from inheriting his birthright would be completed.⁵⁹

China and Japan -- Petroleum and Petroleum-Related Trade

China emerged as a major oil supplier in 1973,

when it contracted with Japan's International Oil Trading Company (IOTC), a ten-firm consortium, to deliver approximately 20,000 bd of high-grade low-sulphur crude, through 31 December 1973. The price the Chinese National Chemical Import and Export Corporation negotiated with Japan was \$3.73 per barrel.⁶⁰ This price was equivalent to Indonesian Sumatran light crude at the time. However, PRC crude escalated in price during 1974 to \$12.85 pb as the price of OPEC oil skyrocketed. This coincides with the ideological basis cited previously. By the end of 1974 Ta-ch'ing crude was selling at fourteen dollars pb CIF.

In the first nine months of 1974, Japan purchased \$243 million worth of crude oil from China, representing twenty-seven percent of its total Chinese imports.⁶¹ On the other side, steel, machinery and chemical fertilizers accounted for eighty percent of the Japanese exports to China. Approximately forty percent of the entire Japanese exports of fertilizer were taken by China.⁶² In 1974 China was supposed to ship 4.9 million tons of oil to Japan.

However, owing to the rapid rise in the price of Chinese crude, the increase in available Japanese crude stocks, and Japan's aggressive drive in the Middle East to offer export credits (\$3.5 billion in 1974) in exchange for guaranteed supplies of oil and gas, Japan was not able to absorb the full amount of fourth quarter deliveries originally agreed upon. In 1974, the PRC actually exported only 80,000 bd to Japan.⁶³

A high level Japanese delegation went to China as a result of this in January 1975 to renegotiate the FOB price.

Demand in the Japanese market was geared to Middle Eastern type crude with a lower heavy oil fraction. But due to security and other political reasons, the Japanese government was interested in increasing imports from China and there were signs that Japanese refiners would receive cheap official financing for building some of the needed facilities to enable the Japanese to process Chinese oil efficiently.⁶⁴ The Chinese at this time, realizing the present demand structure and the associated costs involved in making their crude comparable with other varieties, knew that they too had to make some concessions regarding the pricing of their Ta-ch'ing crude. The conclusion was a lower price for Chinese crude -- \$12.10 pb. This was below the 1974 peak price and below the Indonesian price. This was indicative of the Chinese desire to expand its crude exports and can be seen as a weakness in the Chinese bargaining position.

Although the Japanese refiners were not interested in getting more Chinese crude on the Japanese market, they were not in complete control. Various industries in Japan were interested in increasing the China trade and if this had to be at the cost of more Chinese crude they were willing to have it so. For example, China offered to buy two million tons of Japanese pipeline and rolled steel in exchange for oil. As China was a major customer for Japanese steel, taking six to seven million tons in fiscal 1975,

the Japanese steel industry was unlikely to pass up this offer. The steel companies could use the Chinese crude for their own power plants, with the additional cost being compensated for by increased earnings on steel exports.⁶⁵ In other words, China could get more oil into Japan through barter agreements.

In 1976, several high-caliber Japanese missions visited China with the hopes of exporting liquefaction plants and equipment. One mission comprising the two major Japanese gas liquefaction companies -- Ishikawajima-Harima Heavy Industries and Bridgestone Liquified Gas -- were told that the Chinese were planning to build large gas liquefaction plants with the goal of exporting LNG to Japan by the early 1980s.⁶⁶ It is believed that China asked for Japanese liquefaction technology, as well as for storage tanks and other related facilities. Another mission which had visited China in November 1975 was comprised of Japan Gasoline, Kawasaki Heavy Industries, Ishii Iron Works and C.Itoh (this trading company also possesses advanced gas liquefaction technology).⁶⁷ They were also in China to discuss the export of Japanese distillation, liquefaction, storage and transport facilities. This mission was likewise assured that in exchange for the Japanese buying "sizeable" LNG supplies, the Chinese were ready to place large orders for plant and pipelines. The Japanese had proposed a plan to pipe gas to the Yangtze River, where it would be liquified

and then transported by LNG tankers.⁶⁸

Peking was interested in exporting LNG to Japan because it wanted Japanese technology and equipment to speed up the development of its natural gas industry and so that China could thereby earn increased foreign exchange. Its other interest was to divert Japanese interest and investment from the Soviet Union's gas reserves in Siberia. Consequently, China was interested in giving the Japanese accelerated access to its gas and other fuels. This happened to coincide with the Japanese drive to increase the lucrative exports of industrial plants.

At the same time there was no corresponding mutuality of interest regarding oil. The waning Japanese interest in Chinese crude stimulated Peking to threaten Tokyo to speed up its assistance in the development of Chinese oil deposits or China was prepared to go to the United States for technology and for a market for Chinese crude.⁶⁹ A Japanese mission headed by the chairman of the Japan-China Friendship Association, Yoshihiro Inayama, went to China in January 1976. He asked the Chinese to reduce the planned flow of crude oil to Japan from 8.1 million metric tons in 1975-1976 to 6 million tons in 1976-1977 and also requested a reduction from the 30-50 million tons by 1981 to 15 million tons.⁷⁰ The reasons cited for this were the economic pressures on Japan's oil companies, problems with processing China's waxy oil and that with the demand for oil depressed by the

recession Japan did not need as much oil as it thought it would. But the Chinese wanted to sell more oil not less as it needed the foreign exchange for its development. China showed little sympathy for the plight of the Japanese refiners and just stated that it was negotiating with the Americans. The Japanese requested that if China did make any agreements with the major US companies, that it should not permit any of this oil to be sold on the Japanese market. To this the Chinese were non-committal. Representatives of Caltex, Gulf and Exxon, the US oil majors, were known to have visited China. It was reported that Peking was anxious to establish a market with American west coast electric power companies which were believed to be prepared to handle large quantities of waxy but low-sulphur crude. Moreover another attractive feature of the US for China was the advanced offshore exploration and development technology possessed by the American firms. As Japan was also able to supply offshore equipment, refineries, pipelines and storage facilities, Peking had a good bargaining card in negotiating with both of them. Meanwhile, a mission of Chinese oil experts stopped in Japan on its way back from the US to talk to the Japanese oil companies and study their exploration equipment in another bid to win a stronger commitment from Japan to take more oil and supply more technology and equipment.⁷¹

Meanwhile, in order to facilitate industrial plant sales, the Japanese government decided to lower its interest rates on China's deferred payments to Japanese plant exporters.⁷² In response to this measure, it was reported that Japan Gasoline, Sumitomo Shoji and C.Itoh agreed to sell a petrochemical plant to China on a deferred-payment basis with an effective interest rate of seven percent. The same was believed to have been the basis for the sale of a synthetic rubber plant by Japan Synthetic Rubber, Japan Gasoline and Mitsubishi Corp.⁷³

In 1976, China was suffering a decrease in its rate of oil growth, plus a decrease in its exports to Japan. A number of reasons have been put forward for this: a falloff in production at Ta-ch'ing; the development of new onshore fields meaning the diversion of emphasis from older fields to new untested locations which would cause an overall decrease in the short-term but favourable results in the long-term; and an emphasis on offshore development which would necessitate large inputs of capital and effort which otherwise would have been utilized in more reliable onshore projects.⁷⁴ This may explain the decline in the growth rate of oil production, but does not explain why China's exports to Japan fell, for there was surplus oil for sale. From the Chinese side it would seem that this was due to the ideological component of the equation. At this time the radicals were in control and one of their

primary interests was the disgrace of Teng Hsiao-ping and the "deactivation of his economic vision". Consequently, there was a change in China's petroleum stance with Japan as exports were no longer considered of the utmost importance in China's natural resource development. From the Japanese side, the reasons for the decline have already been mentioned -- oversupply and refining problems.

TABLE 4-2

CHINESE OIL SHIPMENTS TO JAPAN		
(Million metric tons)		
	1976	1975
January-March	0.94	1.01
April-June†	1.25	2.26
July-September	1.73	2.35
October-December†	2.16-4.18*	2.49
TOTAL	6.10-8.10*	8.14
† Contracted. * 2 million metric tons are optional during the fourth quarter.		

Source: FEER: June 18, 1976, p. 38.

Although Japanese trade as a whole was recovering, its trade with China was stagnating. The steel trade continued to do well, steel products as a whole accounted for more than fifty percent of Japanese sales to China. However, in other areas, eg. Chinese plant and machinery purchases, there was an obvious slump in 1975-1976. Three Japanese chemical plants were sold before the Tien An Men disturbances, but after that all negotiations stalled. According to JETRO, the Japan External Trade Organization, the decline of Japanese imports from China was due to the drop in oil imports. It was down 20.1 percent in volume

and 21.8 percent in value from the levels of a year earlier. Oil's share in Japan's total imports from China also slipped from more than forty-two percent to thirty-seven percent.⁷⁵

FIGURE 5

Source: FEER: August 13, 1976, p. 43.

The Importers Conference of Chinese Petroleum in Japan and the IOTC, the two avenues for Japanese purchases of Chinese crude, advised that their 1977 imports would most likely remain at the 1976 level of 6.8 million tons which in itself was a reduction from the 8.1 million tons in 1975.⁷⁶ They said that Japan would like to increase its purchases but the demand for Chinese crude had declined in Japan due to its high paraffin content. Consequently,

China must overcome these technical problems in order to increase its exports. In order to gain a greater share of the market, China is supplying its crude more cheaply in recognition of the limitations of its product. Chinese crude was being sold at US\$12.65-12.68 pb undercutting the low-sulphur Indonesian product by US 12-13 ¢ pb.⁷⁷ Even with the lower prices, Chinese crude has a limited future in the Japanese market because the market is already glutted with heavy oil products. If Peking could offer a more suitable crude for lighter distillates such as gasoline, it is possible that it could displace Indonesia as Japan's major crude source outside the Middle East.⁷⁸ At present, China cannot export refined oil as it needs all of its refined products for domestic use and does not have the currency available at this time to expand its refining capacity to the extent necessary to do this.

However, an upsurge in Japan-China trade has been forecast with the change in power-holders in China. Chinese Vice-Premier Yu Chui-li implied that the "Gang of Four" were responsible for the Japan-China trade slump and now things would improve with the return to power of Teng Hsiao-ping. In April 1977, China expressed positive interest for the first time in a long-term bilateral trade agreement which the Japanese had been suggesting for quite a while. Both the Japanese and the Chinese basically agreed that China would buy plant and technology in certain basic

industries as well as steel and other intermediate materials needed for economic development from Japan, while the Japanese would buy oil and coal from China, and the agreement would be valid for five to ten years. Seven areas were specifically mentioned in which the Japanese would offer technology: oil recovery; coal mining; transportation; port facilities; metallurgy; petrochemicals including fertilizers; and electricity generation.⁷⁹ Since that time, the number of Chinese technical missions to Japan has increased once more. There had been a substantial drop-off during the reign of the "Gang of Four". Many of these missions were related to the seven areas previously mentioned. The Japanese are hopeful that this will precede a Chinese plant buying spree as it did in the early 1970s.⁸⁰ Much will depend of course on the Japanese ability to increase its purchases from China -- particularly oil. The influential China trade proponents have in the past been more enthusiastic than the Japanese refiners regarding Chinese crude.⁸¹ On the Chinese side, in terms of money available, much money has had to be poured into reconstruction following the Tangshan earthquakes of 1976, plus in 1976 China suffered its worst drought in twenty-seven years -- hence the necessity of importing massive amounts of grain. Thus it would seem that Chinese buying in the near future will depend to a large extent on agricultural performance which will determine how much foreign exchange is left to buy plant and equipment.

Japan, however, is in a good position to receive a major portion of what plants and equipment the Chinese do decide to buy. The reasons for this would include Chinese foreign policy, the above mentioned agreement, geographical proximity, a record of punctuality, and technological capability. China's initial purchase from the west for its petroleum industry was a 400 ton work vessel bought from Japan. Subsequent to this, there were purchases of Japanese offshore drilling platforms, oil rig supply vessels, supply boats, tugboats and undersea survey crafts. Six out of eleven purchases made by China in this area were from Japan.⁸² In addition, the Japanese have supplied a major proportion of pipeline pipes and were brought in to participate in the construction of a pipeline to Chinwangtao, on the coast to the north of Tientsin.⁸³

In the petrochemical sector, Japan was by far China's largest supplier. In order to meet development goals, China purchased a significant amount of petrochemical complexes. Twenty-two out of forty-three (over a twelve year period) petroleum refineries, petrochemical and synthetic fiber plants have been purchased from the Japanese. In chemical fertilizer plants, Japan was responsible for five out of seventeen.⁸⁴

Although it is impossible to say how much the Chinese will spend on plants, it would be a fair guess to suggest that Japan should get approximately thirty percent of the orders as it did from 1972-1976.

TABLE 4-3

JAPANESE PLANT EXPORTS TO CHINA							
(US\$ million)	1972	1973	1974	1975	1976	Japan total (72-76)	World total* (72-76)
Steel	12.3	0	235.0	12.8	11.3	325.5	648.9
Electric power	15.0	63.0	0	0.0	0	83.0	333.4
Petrochemical	47.0	315.0	52.0	0	103.7	521.7	1,551.0
Oil	8.7	0	0	0	0	8.7	67.7
Mining, metallurgy	0	0	0	0	0	0	125.6
Other	8	0	0	14.1	8.5	22.6	214.6
Japan total	83.0	378.0	335.0	31.1	137.5	964.6	—
World total	119.1	1,315.0	986.0	206.1	190.9	—	2,947.1

* World plant exports to China by category.

Source: FEER: August 19, 1977, p. 39

Summary of Costs and Benefits from the Chinese Perspective

At no time since liberation has there been any intention or desire to allow foreign equity investment in the Chinese economy. Therefore, the costs and benefits of foreign participation in the oil industry only concern plant, technology, equipment, training and services. The Chinese dependence on Soviet assistance in the 1950s was shown by 1960 to have retarding effects on development plans as China had difficulty in completing the projects that were left unfinished when the Soviets withdrew. China's policy became self-reliance and she was consequently wary of any dependence on foreigners. Self-reliance was possible for onshore oil development but China did not have sufficiently advanced technology to develop her offshore fields. If China opened up its doors to extensive foreign contributions in its oil industry the benefits would be rapid development through advanced foreign technology.

plant and equipment. This would have the effect of freeing more oil for export which would bring in more foreign exchange and thereby allow socialist construction on the whole to take place at a faster rate. Geopolitically, development of offshore resources would remove China's main production sites from the Soviet border. In terms of Japan specifically, it would keep her from going into the Soviet corner. The costs of this contribution would be ideological -- economics would be taking precedence over politics and there could be corruption of the ideological orientation of the Chinese masses through increased western influence and presence. There might also be problems in absorbing technology beyond their own capabilities, which would entail a dependent situation to a certain extent.. Thirdly there might be increased disputes over territorial boundaries. Hence, geopolitical, ideological and economic considerations were the key elements in the decisions regarding foreign participation.

Analysis within the Theoretical Framework

First we will consider how prominent or sensitive the petroleum and associated industries are in terms of the Chinese political tradition, national prestige and national economy.

We must take the national political tradition as starting with the advent of the PRC in 1949. The philosophy of the CCP has been to build China into a strong, egalitarian

socialist society. Consequently, its main priority for its oil industry was that it should serve the people. As such the oil industry was developed essentially for domestic consumption, to raise the standard of living. Oil and fertilizer prices⁸⁵ have been kept low enough so that the benefits of the industry could be diffused among the urban and the rural population. The petrochemical industry's emphasis on synthetic fibers and chemical fertilizers both serve the same purposes in different ways. Synthetic fiber production frees more land for growing grain while chemical fertilizer increases food growing productivity. As rice and other foodstuffs have had to be rationed in the past, the present emphasis will enhance the standard of living for the masses. The direction as well as the size of growth of the oil and petrochemical industries are not decided by economists and technicians but by politicians. Collectivization has also been a mainstay of the socialist tradition. The oil industry has likewise been developed on these lines. Ta-ch'ing is a commune as presumably are the other areas of oil development. Here the Chinese socialist principles of combining agriculture and industry, town and country are met. Ta-ch'ing is essentially a political concept.

As has already been stated, the industry is meant to serve the domestic market, but what is left over for export also serves the political beliefs of the country.

Exports are used to get foreign exchange and finance socialist construction but they are additionally used as an instrument of foreign policy. Aside from Japan, China has exported oil to North Korea, Vietnam, Hong Kong, Thailand and the Philippines at undisclosed "friendship prices". The oil to Korea and Vietnam was not sold, but was traded under barter agreements. For the socialist countries Chinese oil and for example, the "China-Korea Friendship Oil Pipeline", was "to further develop economic cooperation and trade relations between the two countries on the basis of proletarian internationalism".⁸⁶ In other words China is using its oil as a political lever to make friends in the region.

Another aspect of political tradition affecting oil development is the PRC stand on the "one China" issue. This has a number of implications regarding Chinese offshore development and her neighbours. China asserts that Taiwan is part of China and consequently her territorial waters include Taiwan's surrounding areas. However, what China regards as her waters, other countries see as theirs. China has offshore claims which intersect with those of South Korea, Vietnam, Taiwan, Indonesia, Malaysia and Japan. South Korea and Taiwan have already given concessions to foreign oil companies in the contested waters. Not wanting to strain its relations with the PRC, the United States has made sure that its companies do not go too close to the

mainland. While China on its part seems content to let these companies explore, it would definitely assert itself when it came to production. This way the Chinese get the initial work done for them. China has also left the door open for some form of Sino-Japanese understanding with respect to the continental shelf, that would permit oil development to go forward even if the title question on their areas of dispute cannot be finally resolved. In this way, Japan would get the lion's share of China's exports and not have to have the attendant risks of exploration. However, if Japan makes any moves that are considered supportive of the nationalist regime on Taiwan, for example joint oil exploration, Sino-Japanese relations would suffer.

The Chinese ideological perspective of the principal contradiction also comes into play in Chinese oil development. The geopolitical factors are most obvious when it is noticed that China's major onshore field, Ta-ch'ing, is close to the Soviet border and the Soviet military build-up on this line poses a direct security threat to China. Accordingly, the Chinese built underground petrochemical facilities at Ta-ch'ing. It was most likely the security reasoning which led China to emphasize oil production far from the Soviet border to the Gulf of Pohai. A supplementary benefit is that Pohai reduces the transportation costs to get the oil ready for export.

In relation to Japan, China would much rather be the supplier of Japan's additional oil requirements than have the Soviet Union filling that position. The Soviets have offered Japan options to help develop their Siberian oil reserves in return for Japanese support of the proposed system of collective security in Asia which appears to be an anti-PRC measure, and substantial Japanese financial investment. Japan however wants the Soviets to return her four northern islands and does not want to antagonize Peking. Historical feelings would see the Japanese and Chinese closer than the Japanese and the Soviets. Also, it is very likely that by 1981, China will be able to supply more oil to Japan than the Soviet Union.

The feeling of national prestige regarding China's oil development can almost start with the fact that China proved the foreign capitalist oil majors wrong. They said China had no oil and China subsequently developed a thriving oil industry without their help. With self-reliance as the underlying concept, the Chinese take great pride in the fact that they built Ta-ch'ing, the deep-water oil port in Talien, their first oil-drilling platform, a number of oil tankers and two showpiece refineries. The call of "Learn from Ta-ch'ing" requests other Chinese industries to emulate the self-reliance and productivity of the oil industry. The fact that the largest Chinese national industrial conference to date was named after

Ta-ch'ing, was opened at Ta-ch'ing, and was presided over by Premier Hua Kuo-feng exemplifies the feeling of pride the Chinese have for their success in development in this area. In terms of international prestige, China's self-reliant onshore development is now becoming a model as domestic energy requirements are gaining in priority amongst many oil producers. China which went from practically nothing in 1950, achieved self-sufficiency in 1963, was exporting surplus oil in 1973, now is Asia's leading oil producer with an output of approximately 1.6 mbd. China now surpasses Indonesia. China is also now one of three (the other two are India and Japan) Asian countries with sophisticated pipe constructing and laying capabilities.

Right from the beginning the CCP emphasized the petroleum industry. Almost two-thirds of the entire national budget for energy was earmarked for the development of oil resources in the First Five-Year Plan 1953-1957. The consecutive five year plans all emphasized exploration, oil development and the refining industry. The discovery of Ta-ch'ing in 1960, and the reserves in Northeast China, made all the human and financial expenditures worthwhile for it meant that China had commercially valuable oil resources and would no longer have to be dependent on imports. Once China had the ability to export oil and natural gas it became a major foreign exchange earner, earning China \$400 million in 1974 and more with each subsequent year. This

foreign exchange has enabled China to buy imported plants and equipment which would serve to quicken the pace of socialist construction and hopefully attain the front rank status she wants by the turn of the century. The foreign equipment, technology and plants bought were for essential heavy industries which in turn have beneficial effects on light industry and agriculture. Increasing exports of oil and natural gas will of course mean increased foreign exchange earnings and thereby increased purchases of plant and equipment.

Hence geopolitical, ideological and economic considerations shape the Chinese oil and petrochemical industries. It is obvious that these industries rank very high in terms of national political tradition, national prestige and the national economy.

The second dimension, setting, looks at the national perceptions of the costs and advantages of foreign contributions in oil and its associated industries.

From 1949-1960 China relied to a great extent on the Soviet Union for aid in the development of its heavy industrial base. However, the Soviet withdrawal of her technicians, materials and blueprints in 1960 exposed the problems inherent in this kind of reliance on foreign aid. Development plans fell behind as the Chinese did not possess some of the necessary technology or design capability to finish the work that had been started. After this self-

reliance became the mainstay of China's internal policy. This did not mean autarchy -- there would be interrelations with other countries and the use of foreign technology -- but China did not want to get into a dependent relationship again. China diversified her sources of technological imports to other socialist countries as well as the west and Japan. For example the refining industry was heavily influenced by the Cubans. The Great Proletarian Cultural Revolution saw a downplay in terms of the contribution of foreign technology, but the Sino-Soviet border conflicts of 1969, accelerated another "open-door" attitude toward the foreign contribution regarding China's modernization goals. In the early 1970s, China imported more foreign technology, equipment and plants than in any previous period. These imports were used to enhance output in half a dozen basic industries primarily metallurgy, petrochemicals and energy. Due to the central planning control of the commodity composition of imports, the effectiveness of this relatively small volume of trade was multiplied. In 1976-1977, the domestic power struggle between the radicals and the moderates centered to a large extent on the path of economic development to be taken with the consequence being another "open-door" policy.

An obvious advantage to a more definite foreign contribution to the oil industry would have been more rapid development, but the Chinese adhered to a strict policy of

self-reliance onshore. Nevertheless, in the refining and petrochemical industries the foreign contribution of plant and technology had an effective impact. China has come to rely on oil export earnings to finance a fair share of its development efforts. In order to increase these exports, China must develop her offshore resources plus make large-scale improvements in port and handling facilities. These all require massive investments and regarding offshore development -- advanced technology which it seems that only the oil majors in the western countries have. As the State Planning Commissioner said, China "needs" to import the "necessary" foreign technology. In order to minimize any type of dependency situation or loss of control of their natural resources, the Chinese will definitely not allow any type of equity investment by foreigners. It will also keep diversified sources of supply. At the same time, it will benefit from foreign plant, equipment and technology. As such, the Japanese will play a substantial part in the development of China's natural gas industry, while the heavy involvement of Japan has the added benefit of diverting Japanese interest from the Soviet Union. Also in relation to its offshore development, China has made a deal with the Houston Texas based Geospace Corporation. Twenty Chinese experts were trained there in seismic processing techniques and 70,000 pounds of related equipment were flown to Peking. This was the first commercial jet cargo

flight between the US and China.⁸⁷ In addition, China is taking advantage of the interest of the oil majors to market its oil plus supplying advanced technology, while it is also sending petroleum delegations to countries like Mexico, where Pemex, the state oil company, has also pursued a strategy of modified self-reliance. Moreover, China has been able to take advantage of the depressed tanker market to build up its own fleet, which is one of the bottlenecks in the development of its export capability.⁸⁸

Consequently, we see China taking advantage of the benefits to be gained from the foreign contribution while minimizing the costs. Arrangements based on "equality and mutual benefit" such as production-sharing and service contracts, plus the import of plant, equipment and technology are acceptable. Equity interest is not. In China's trade with Japan regarding oil and its related industries, China has maintained a diversity of sources of supply and as such is not dependent on Japan in the way that she was in her relations with the Soviet Union. Their trade also has had the effect of diverting Japanese interest from Siberian oil reserve development. Regarding ideology versus economic matters, the decision for a more open-door policy had already been made. From the Japanese standpoint, her costs would include taking more Chinese oil than she perhaps wants at certain times, but the benefits far outweigh this. Through the Japan-China trade many of Japan's

other industries like steel for example have been effected beneficially, as well as putting Japan in a preferred position to export plant, equipment and technology to China. In addition, Japan has diversified her sources of petroleum to another area close by.

Policy formation, the third dimension, defines the value in social, political or economic terms to various domestic groups to maintain, increase, or expel the foreign presence. Although people have a tendency to view China as monolithic, without diversity, this of course is not the case.

Starting with the Great Leap Forward in 1958, when China began looking for small oil fields and building small refineries, the development of the petroleum industry highlighted the great debate between "politics in command" versus "economics in command". This culminated in the Great Proletarian Cultural Revolution in 1969 when a major aspect of intraparty factionalism was focused on the degree to which China should absorb western technology to further its development goals. The outcome seemed to be the acceptance of a short-run retardation of growth in order to attain the long-run social goals of mass participation and self-reliance. However, Chou En-lai who was always the pragmatist, while Mao was the father of Chinese ideology, put forward the period of the Fifth Five-Year Plan, 1976-1980, as being the crucial time for China to make great strides

in rapid modernization and industrialization. Before his death, Chou En-lai handpicked Hua Kuo-feng as his successor, a moderate who was also endorsed by Mao Tse-tung. But the intraparty clash of interest which had been part of the Cultural Revolution surfaced in a power struggle following the death of Mao. While the radicals ("politics in command") were in power immediately following his death, one of their primary interests was disgracing Teng Hsiao-ping and deactivating his economic vision which was more liberal, open-door, and had a view of increasing acquisitions of foreign technology for the development of China's natural resource industries coupled with a reliance on exports such as oil to earn foreign exchange and finance these acquisitions. Consequently, the petroleum industry was downplayed, the head of it disappeared from view, he agreed with Teng's policy, and the Chinese displayed less interest in exporting oil to Japan. However, the "Gang of Four" as the radicals were called, were eliminated and the disgraced Teng was returned to power with his associated economic line, and the head of China's petroleum industry reappeared once more. As has already been shown in the previous section this has had a powerful impact on the path of development of the Chinese petroleum, natural gas and petrochemical industries.

When one is dealing with a country such as China, the value in economic terms to particular domestic groups to maintain, increase or dispell foreign inputs is un-

important. Nobody in China would be able to make a personal fortune, no matter which way things went. It is a matter of political control with the consequent direction of the path of economic and social development which is of importance. Of course this does not negate the possibility of bureaucratic prestige-seeking or empire-building. The end of the power struggle which saw the defeat of the radicals, thus has had a great impact regarding foreign inputs, they will increase. Economics has superseded politics but by no means has eliminated them. Foreign inputs will be increased, but the essential direction of a socialist development strategy has not changed.

Bargaining

Examination of the China-Japan connection regarding petroleum, its associated industries, technology and equipment shows a number of shifts in the short-run bargaining power of each of them.

At the end of 1973 into mid-1974 China was able to demand a very high price for its oil from Japan. On China's side there was power to do this due to OPEC's pricing policies. In addition, Japan was in a weak bargaining position due to its dependence on Middle Eastern oil -- the 1973 boycott scared Japan and slowed down its economy and consequently there was a strong desire on Japan's part to diversify its sources of petroleum to countries outside the Middle East. Hence, Japan was happy to get whatever it

it could at whichever prices were asked. By the end of 1974 the factors in the equation had changed. Japan had contracted for so much oil that it had more than it needed, the Japanese economy was in recession, and the Japanese refiners were having trouble with the Chinese crude oil. But the Japanese government was interested in increasing the China trade and China was aware of the Japanese demand structure and the associated costs in making their crude comparable to other types. Thus the Chinese lowered their prices, while the Japanese imported less than they were scheduled to. 1976-1977 saw intensive bargaining. In terms of LNG, China seemed to be in a strong position. The Japanese industrialists were very interested in supplying plant and equipment for China's natural gas industry development. While the Chinese wanted these imports, they also wanted assurance of a natural gas market plus the consequent foreign exchange. Various deals were arranged whereby China managed to get both its desires fulfilled. As to oil there would seem to have been a standoff. Japan wanted less Chinese crude, and China was less interested in exporting it. China's reasons were the decrease in production growth, and of most importance the radical line regarding oil development. However, 1977-1978 saw an upward swing once again due to the complementarity of interests of the Japanese and the Chinese. Japan was extremely interested in exporting lucrative plant, equipment

and technology to China, while one of China's top priorities, concurrent with the change in power-holders, was to get as much foreign exchange as possible through the export of oil to finance these purchases. A recent agreement was made between China and Japan for the purchase of at least fifteen million tons of Chinese crude by Japan over the next four years.⁸⁹ Therefore, bargaining power at this time could be seen as being fairly equal with the final agreement bringing joint-maximization.

In brief, the petroleum industry in China is viewed with a high degree of national prestige. Its development and policies reflect the Chinese political tradition since 1949 and it is a major foreign exchange earner and therefore very important in the national economy. It has gone through various short-run shifts in its bargaining position with the Japanese. In terms of cumulative long-run change in its bargaining position, it would seem to have fallen from a very strong position when it first started exporting crude in 1973 to one of medium strength today. However, it must be kept in mind that this only covers a five year period.

NOTES

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CHAPTER V

COMPARISON AND CONCLUSION

Both the Chinese and the Indonesians have complementary economies to the Japanese. Japan is a highly industrialized country whose economy is based to a large extent on processing industries. However, Japan is resource poor and must import the raw materials to feed these industries. Japan imports approximately ninety-eight percent of her energy needs, that is oil. Indonesia is a developing country in the process of industrializing. It is also an oil producer. It needs capital, equipment and technology to implement its development plans -- Japan can supply these while in return Indonesia can export petroleum and refined products to Japan. China is also developing and modernizing and producing oil. It too looks to Japan as a logical supplier for its technology, equipment and plant needs for the rapid expansion of its economic and industrial base, while oil makes up the largest portion of its exports to Japan. Geographical proximity plays an important part in the calculations of all three as it has also been an active ingredient in their historical relationships. Prior to World War II, Japan was relying mainly on coal for its industries which it acquired partially from its colony Manchuria. Manchuria

of course was taken from China, and the Japanese occupied and fought in much of China until the end of World War II. At the same time, Southeast Asia was an important source for Japanese oil. When the Americans and British started obstructing the flow of oil to Japan, Japan went to war and subsequently occupied much of Southeast Asia. Thus both China and Indonesia had the same historical legacy of Japan as an occupier and an enemy and were consequently wary of any renewed Japanese designs for a "co-prosperity sphere". However, if we look further back, there was a close cultural affinity between China and Japan, with the Japanese regarding the Chinese as the elder brother to be learned from.

In essence, what we find at present is a fundamental dependency of the Japanese on imported petroleum and an equally fundamental dependency of the Chinese and the Indonesians on oil exports to finance development. So what we really have is a situation of interdependence. On a general level this is the case, however it is modified on the one hand by the Japanese ability to import oil from various areas, and on the other hand by the fact that the Chinese and the Indonesians could look to others for their industrial needs. It is the constraints imposed by national policies reflecting particular ideologies, by the vulnerabilities of consumers, producers and oil TNCs, plus the broader setting of total commodity trade between

these sets of countries which defines whether the petroleum relationships are in fact dependent or independent within the worldwide context of interdependence.

First we will look at the two relationships in terms of an overall bargaining position. The Japanese strategy of investment rests on a consortium approach whereby a number of Japanese firms cooperate in a single venture. In this way they can share risks, enter multiple markets as they do not have to finance each project themselves and can thus share opportunities, and in many cases achieve vertical integration by virtue of the types of firms involved. In other words, for both loan and investment-related projects, the Japanese group manages to become the creditor-investor-operator-purchaser or a variation on this. When dealing with a country such as Indonesia, one can see the ramifications of this sort of strategy. Most Indonesian firms are small to medium sized with the exception of Pertamina. Consequently, when it comes to bargaining with these consortiums, for example, in terms of exports, the Indonesians are in an extremely weak position. Substantial competition amongst themselves stands in opposition to the concentration amongst big Japanese business. Japanese big business controls approximately sixty-eight percent of total Japanese imports from Indonesia. Even when Indonesians go into joint-ventures with the Japanese they are usually not equals but junior

partners. The Japanese control all the positions of power; usually do most of the financing; require the purchase of raw materials from Japan; and exact royalties, management and technical fees, while the technical know-how is retained by the Japanese. In addition, loans for expansion etc. are not granted directly from Japanese banks to a particular joint-venture, instead they are channelled through a trading company and thereby effective control of the finances remain in Japanese hands. The Japanese are particularly heavy investors in the Indonesian textile industry and resource industries and Indonesia is becoming an expanding base for Japanese manufactured products as well as for Japanese financial institutions.

The Japanese use the consortium strategy in their dealings with the Chinese also. But here the Japanese are not working with a diversified competing group of small size companies. Instead they bargain with state trading firms. As such, there is no competition among Chinese manufacturers for the Japanese to profit from in terms of imports or exports. They bargain with well-informed Chinese negotiators who are familiar with market conditions and prices. It is thus not as easy to take advantage of them. In addition, the commodity composition of both imports and exports is controlled by the state planners, and hence, the effectiveness of even this small volume of trade is multiplied within China. The Japanese have also

been predisposed to make concessional terms for the Chinese in hopes of an even larger penetration of the "vast China market". The Japanese have proved more than willing to exchange technical and trade missions with the Chinese as well as put on industrial exhibitions in spite of the acknowledged Chinese practise of unlicensed copying. Although ~~the Chinese have~~ substantial strength when bargaining with the Japanese consortiums, they still have some dependence on the Japanese due to buying capital goods beyond their own manufacturing capability and consequently are dependent for spare parts and components. However, it would seem that the Chinese strength as opposed to the Indonesian weakness overall is due primarily to capital in terms of credit and investment. As partners with the Indonesians the Japanese can determine to a large extent what investments are made, how they are made, and to whom they will be made. In other words, by controlling the pursestrings, the Japanese are also able to control the commodity composition of much of Indonesia's exports and imports. This is not so in the Chinese case. Although China buys from Japan on a deferred-payment basis, which is essentially credit, their lack of equity investment in the Chinese economy means that the Japanese can only buy and sell while the control of composition remains in Chinese hands. Bargaining is done between equals. Therefore, in terms of their overall

position we find Indonesian dependence and Chinese independence in their relations with the Japanese. Now we must compare the Japanese connections with their respective petroleum industries.

In a sense, the growth of and emphasis on the petroleum and associated industries, in both China and Indonesia, were stimulated by the same kind of experience. For Indonesia, hundreds of years of colonialism instigated a strong nationalist feeling regarding Indonesian resources. The logical outgrowth of this was nationalization of the petroleum industry after the achievement of independence. The Chinese, for their part, were kindled by the experience of imperialism. Indonesia had an existent petroleum industry but it was controlled by three foreign oil majors, who, in addition to taking out what they wanted, also controlled the domestic market consumption of oil and oil-based products for cooking, heating and industry in Indonesia. The Chinese were told by the oil majors that they had no commercial oil and because of this China relied on companies like Standard Oil for the import of almost its total requirements. With the Communist takeover in 1949, the oil majors were thrown out and of course the state took control of the energy sector. What is interesting to note is that these events occurred in Indonesia and China at approximately the same time.

During the Sukarno era following independence

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there was an attempt at an independent capitalist development. Due to inefficiency and disorganization, production and growth in the petroleum industry stagnated as did the rest of the economy. However, a comparison of the Indonesian and Chinese policies and bargaining strengths can only be made from the coming to power of Suharto, that is, when the nationalized industry really took off. The economic policy of the Suharto government was one of a western, liberal, open-door model. Development was to be financed by the returns from the raw material sectors plus vast amounts of foreign aid. Production-sharing contracts in the oil industry were to be the answer for domestic control of the industry while gleaning the benefits of foreign technology, equipment and expertise. In contrast, the Chinese followed a policy of self-reliance in the development of their onshore oil industry while learning from other socialist countries particularly in their refining industry. Consequently, we see one military dominated regime, a foreign investor's economic paradise, having a nationalized petroleum industry with production-sharing as its basis. On the other hand, we have a socialist country with a policy of self-reliance in its oil industry. We must now examine what the consequences have been of this difference of approach and political ideology.

A significant difference between the two is in the area of control and accountability. In the Indonesian case

we saw how the petroleum and associated industries were controlled lock, stock and barrel by one man, Sutowo, under the benign approval of Suharto. Sutowo's perspective on what a state oil company should be or look like led to an enclave-type development. Pertamina people earned more, got more benefits, and lived better than the average Indonesian. For as was quoted in the chapter on Indonesia, Sutowo believed that it was not psychologically possible for men wearing threadbare suits and driving old cars to negotiate on a level of equality with the international oil majors -- thus his Silver Cloud Rolls Royce and family mansion. This perspective, of course, is not borne out by the Chinese experience. The Chinese wore their Mao suits and drove in old cars yet have managed to negotiate efficiently and effectively with all sectors of the international oligopoly. It obviously is not the clothes that make the difference. Where China had its participants to the national conference on learning from Ta-ch'ing living in caves, Sutowo's approach was Pertamina guesthouses on Bali. In Indonesia, Pertamina symbols signified a dual economy, an area divorced from the impoverishment of the people. The Chinese said learn from Ta-ch'ing and its industry employees lived in the same manner as the rest of the population, they were not an elite in any economic sense; rather they were held up as models of self-reliance and industriousness. They were to be emulated not envied.

Sutowo used Pertamina as his personal fiefdom and used its profits to dole out gifts to his power base -- the army and Suharto. He did not give the state the fifty-five percent of Pertamina profit as he was supposed to, he put Pertamina money in foreign banks as he was not supposed to, and he borrowed money for Pertamina development way beyond internationally set guidelines for Indonesia on his signature alone. The corruption and mismanagement was in fact due to the lack of accountability. Sutowo got things done so Suharto gave him a free reign to manage as he wished. It was only by the virtual bankruptcy of Pertamina that Sutowo was dismissed. In China on the other hand, there was no way that the petroleum industry was divorced from the rest of the nation. As was evident in the chapter on China, the industry was most definitely accountable to the government. The differing emphases of the various periods in the Chinese political history were most obviously reflected in petroleum industry policy.

For Indonesia the primary concern was exports for foreign exchange, while in China the industry was meant to serve domestic needs while what was left over was to be used to serve foreign policy objectives and to earn foreign exchange. In Indonesia only a small percentage of its own oil was for domestic use while it imported Middle Eastern crude to make up the difference. Aside from the fact that it makes Indonesia vulnerable then as a consumer as was

evidenced in 1973, it also has other consequences.

Firstly, Indonesia has ended up charging international prices for domestic oil consumers with the masses absorbing the negative impact. Secondly, the high prices have made it difficult for indigenous industrialization. Thirdly, it is this pricing that is used as the feedstock price for the petrochemical industry which means that the price of chemical fertilizers becomes way beyond the means of the Indonesian peasant. In comparison with this policy, the Chinese have kept the price of oil and its derivatives down to pre-1950 levels. This has allowed a domestic changeover to oil and has eased the cost of industrialization in other industries. It has also made possible the expansion of the use of chemical fertilizers in the rural sector. The consequence of this policy has been to raise the standard of living for the masses, while the outcome of Indonesian policy has been to increase the disparity between the rich and the poor.

In the refining and the petrochemical sectors the evidence is clear. China has bought many plants and equipment from the Japanese, but these have been to produce products which the Chinese deemed beneficial to the masses. By producing synthetic rubber, the Chinese will not need to waste foreign exchange on importing rubber which it does now; by producing synthetic fibers it frees cotton-growing land for grain; and by producing chemical fertilizers

it increases agricultural production. All of this is based on the use of cheap Chinese oil as a feedstock. In Indonesia, much of the financing for its refining and petrochemical industries comes from the Japanese, hence the Japanese have a very large say in what the product mix will be. Indonesia's synthetic fibers are for the textile industry which is mainly Japanese controlled. It does not serve the purpose of freeing cotton land as it does in China because Indonesia imports its cotton. Although there could be a foreign exchange saving due to the reduction of cotton imports, this is more than offset by the foreign exchange drain for debt-servicing and imported inputs for the modern textile industry.¹ It produces plastics which fit in with the Japanese strategy of having a complete plastics operation in Southeast Asia for export to Japan. Its chemical fertilizer production is priced so as to benefit the large landholders² and we do find the Japanese involved here again with large export-oriented agricultural estates.³ Indonesian refineries are for the most part geared to Middle Eastern oil, because it uses this oil domestically but also because the Japanese finance many of these downstream activities. As eighty percent of their imported oil is from the Middle East, they would like to process as much of it as possible in Southeast Asia and thereby keep of much of it as they can in storage outside of the Middle East in case of another

embargo. Moreover, due to their financing, Japan has a say in the geographical positioning of Indonesian facilities and hence, joint-ventures with Pertamina to establish complexes on the shores of the Malacca Straits thereby guaranteeing Indonesian support in its use of them. Whereas China can make its own decisions based on its own interests regarding the placement of its refining and petrochemical industries. For example, the Ta-ch'ing complexes are underground for security reasons while other complexes are in the south for the same reason and to facilitate exports. We find most of the Indonesian refined products going to Japan in exchange for financing as is the case for oil. The Japanese have also tied up Indonesian LNG production for the next twenty years through a long-term contract based again on financing. This kind of dependency was most obvious when Pertamina nearly collapsed and many of its projects had to be slowed down or eliminated. Financing could not be found for those projects which would have been most beneficial to the Indonesian populace, whereas the Japanese came through with the financing for the completion of the LNG export complexes.

Another aspect of the two divergent national policies is learning. In the Indonesian production-sharing contract the most important article was the "management clause". This was supposed to provide an institutionalized avenue for Indonesian learning with the projected outcome of

Indonesians being able to take over all areas of the petroleum industry around the 1990s, plus it was to provide the legal basis for preventing foreign companies from taking actions deemed detrimental to Indonesia. The outcome in fact has been quite different. The Indonesians still cannot undertake difficult onshore exploration and development. In addition, the only point the legal aspect served was making sure the foreign contractors did not take actions that were detrimental to Pertamina, and as we have seen, Pertamina is not to be equated with the Indonesian people. The Chinese, on the other hand, through their policy of self-reliance, have mastered all aspects of onshore exploration and development, including the building of rigs, tankers, pipelines etc. It has a pipe-laying capacity that Indonesia does not possess, even though Indonesia's petroleum industry has been operational for many, many more years than China's. In offshore development, China is not relying solely on foreign contractors, but having its own experts trained and buying the advanced equipment abroad to be used by the Chinese themselves.

The "unreal" Indonesian hopes of oil export earnings to finance development crashed along with Pertamina in 1976. The money did not serve as a vehicle for development, rather it served to mortgage Indonesia's future. Twenty percent of the export earnings are now required to service Pertamina debts, hence the necessity of increased production and

increased exports. Herein lies another problem. To increase production, Indonesia needs to be more concessionary to foreign contractors for it is they who have the offshore technology needed to develop the offshore fields where the additional production will come from. But to make more money, Indonesia had to stiffen its production-sharing terms in its favour and consequently the foreign contractors have shown little interest in exploiting Indonesia's offshore resources. This is in direct contrast to the interest shown by the oil majors in supplying technology and equipment to the Chinese exploitation effort. In the field of increasing exports, Indonesia will also run into trouble. As its crude is comparable to China's, it is finding itself in competition with the Chinese. Indonesia wants the money from these exports while China is interested in the foreign exchange; but it is also interested in making friends in the region and using its oil as a lever for foreign policy. The two countries meet head on in Japan, the Philippines and Thailand. Although there is the technical problem of the waxy content in Chinese oil, they have managed to make substantial inroads into the regional market by selling at "friendship prices" which undercut those of Indonesia. So far Indonesia has been able to maintain export growth by expanding its sales on the US west coast where it now supplies over forty percent of their imports. However, as was pointed out in Chapter IV, the Chinese are now negotiating

in this area too, and again the image of the "vast China market" plus the desire of the major US corporations to sell sophisticated plant, technology and equipment will probably give the Chinese a lead in bargaining in this area. Moreover, although Indonesia now has approximately fifteen percent of the Japanese market, it could possibly be displaced by China if China could offer crude more suitable for lighter distillates such as gasoline. China could do this by refining her crude at home although this would be very costly in terms of the plant and equipment needed. But it would seem that even without doing this China has been able to conclude a petroleum-related agreement with Japan in exchange for plant, equipment and technology, while Japan has been continuing to take less oil from Indonesia.

The military economic "development" of Indonesia has failed in both industry and agriculture to create an even minimal basis for independent national economic development -- the rural peasants live at barely subsistence levels while the cities are filled with unemployed and underemployed. Massive foreign aid and foreign investment have been channelled into those sectors which interest the industrialized countries and from which they can benefit eg. natural resource exploitation and processing industries. These do not serve to meet the basic needs of the Indonesian masses. In addition, the money usually goes into capital-

intensive industries which do nothing to alleviate unemployment and just serve to dichotomize the economy and wealth even further. The unemployed workforce increases annually, while the masses of the population are as poor, if not poorer than before, while the military and compradore elite including "national entrepreneurs" and large landowners get richer. Dutch colonialism has been replaced by Japanese dominance while the Indonesian economy continues to be exploited in their interest. The long-term effects of this development policy are explicitly shown in the petroleum industry -- in approximately twenty years Indonesia will have no oil reserves left while debt repayments will eat up whatever export earnings there are. Moreover, the competition of foreign investment and imported goods, as well as the high cost of energy, will limit the potential of domestic industrialization. Given the above, it would be fairly safe to predict that the living conditions of the masses will at best be maintained and at worst decline even more. Also it is obvious that the country's indebtedness to other nations such as Japan, as well as its reliance on foreign aid, will serve to perpetuate its dependent situation. Only a structural transformation internally, eg. through land reform, and different energy policies, plus a structural change in Indonesia's relations with the industrialized countries, could generate an independent progressive development.

The Chinese policy of self-reliance and collectivization has indeed had the effect of generating progressive development. The collectives in both agriculture and industry have served to make the most efficient use of both human and natural resource potential and thereby raised the standard of living of the masses considerably. Where only thirty years ago there was widespread starvation and illiteracy, today no one goes hungry, everyone is clothed and illiteracy is essentially eradicated. The policies produced by priority being given to the betterment of the human condition are exemplified by the domestic energy policy. This being, that China's oil is first to serve domestic needs in both agriculture and industry, and only second to earn foreign exchange, which again is used to acquire plant, technology and equipment which will be funnelled into vital areas. By keeping out foreign capital and limiting the amount and composition of imports, China has been able to progress remarkably on the path of development while maintaining her independence, and consequently is able to bargain on equal terms in the international arena.

From the case studies it is evident that China has been far more adept than Indonesia in creating an exchange relationship with Japan based on mutual benefit. The positive consequences of this for spreading the benefits of development throughout the society and for learning have

been notable in the Chinese case, while the negative consequences of this fact have been equally notable in the Indonesian case.

NOTES

¹Ingrid Palmer and Lance Castles, "The Textile Industry", The Economy of Indonesia:315-337, p.336.

²David H. Penny and J. Price Gittinger, "Economics and Indonesian Agricultural Development", The Economy of Indonesia:162-178, p.163.

³Mihara, "Indonesia and Japan", p.98.

APPENDIX I

AREA MAP

Source: The Economist, May 7, 1977

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