THE UNHOLY TRINITY:

MULTINATIONAL CORPORATIONS,

TECHNOLOGY TRANSFER & THE LESSER DEVELOPED COUNTRIES

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Preface

This material is being submitted to Dr. Lawrence Juda, member of the Political Science department at Muhlenberg College, in partial fulfillment of the requirements for his course in International Politics, as taught during the Spring semester of 1974.

The sections on the multinational corporation, as well as the bibliographies, were all prepared in fulfilling the requirements of the senior seminar as taught by Dr. Bednar during the 1973-1974 academic year, and therefore should not be credited to the grade in International Politics. The work by the M.I.T. team and Ellul were examined for the seminar as well, but the Introduction was written especially for this paper. Portions of the metaphysical material in the Introduction reflect the influence of work done for either Dr. Howell's "Metaphysics," or Dr. Jennings' "Theological Ethics."

The material cited in the footnotes or annotated in the bibliographies will remain in my personal library, and will be available to any professor on loan.

Without the constant assistance and patience of Val Jepsen, our Inter-Library Loan Librarian, much of the material examined would not have been obtained. For her help I'm grateful. Dr. Slouka's connections with the Columbia University Law Library proved invaluable in xeroxing U.N. materials out of print. His friends were very generous.

I've read the Honor Code.

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Introduction

Our universe shall be limited to tierra firma; our metaphysics shall be the technological one which pervades our civilizations today; our subjects shall be the nation-states among whom the resources of the universe are divided; and our antagonist, whose nature we will consider in the above context, shall be the multinational corporation.

The state of our universe (the so-called "Spaceship Earth") has been well documented by various sources, not all of which agree. Their optimism seems to rise in direct proportion to their association with the Western industrial estate. The work by the academic team at the Massachusetts Institute of Technology, led by Jay Forrester, has been found particularly comprehensive and convincing. The team's conclusions have been published in Limits to Growth (1972), authored by Daniel and Donella Meadows, Jörgen Randers (a recent guest at Muhlenberg), and William Behrens III. Their work indicates clearly the diminishing nature of the very limited resources upon which we have come to rely so heavily.

With the assistance of their computing center and the theory of system dynamics pioneered by Jay Forrester, the team was able to construct a rather sophisticated model of the interactions between the five major variables of our universe: natural resources, food, population, industrial output, and pollution. Based on their intensive examination of case studies and other available information, Forrester and his colleagues developed "multipliers" which reflected the impact of changes in one variable upon the others. "The multipliers vary from a 'normal' value of 1. In other words, for a normal condition that is taken as a reference of comparison, the multiplier would not alter the [variable]. If the conditions were more favorable than normal [for instance increased food vs. the birth rate], the multiplier would have a value greater than 1. If the condition of a part of the system [in this case food production relative to the standard year] should be less favorable than normal, the corresponding multiplier would have a value less than 1.[1]

These multipliers reflect the exponential growth patterns inherent in uncontrolled activity, and are incorporated into the many feedback loops which comprise the world model. One of these loops is reproduced graphically below; and the entire model is pictured on the next page.[2]

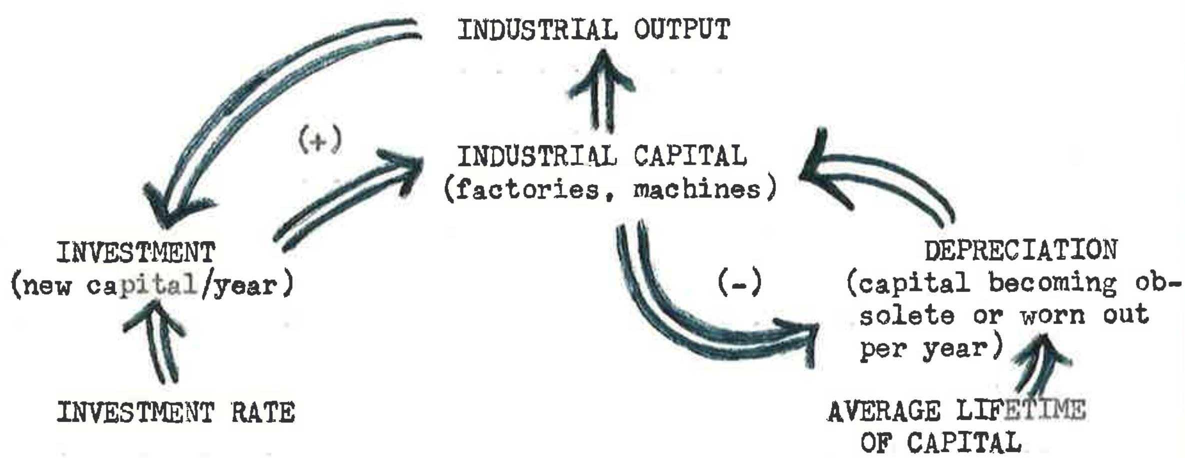
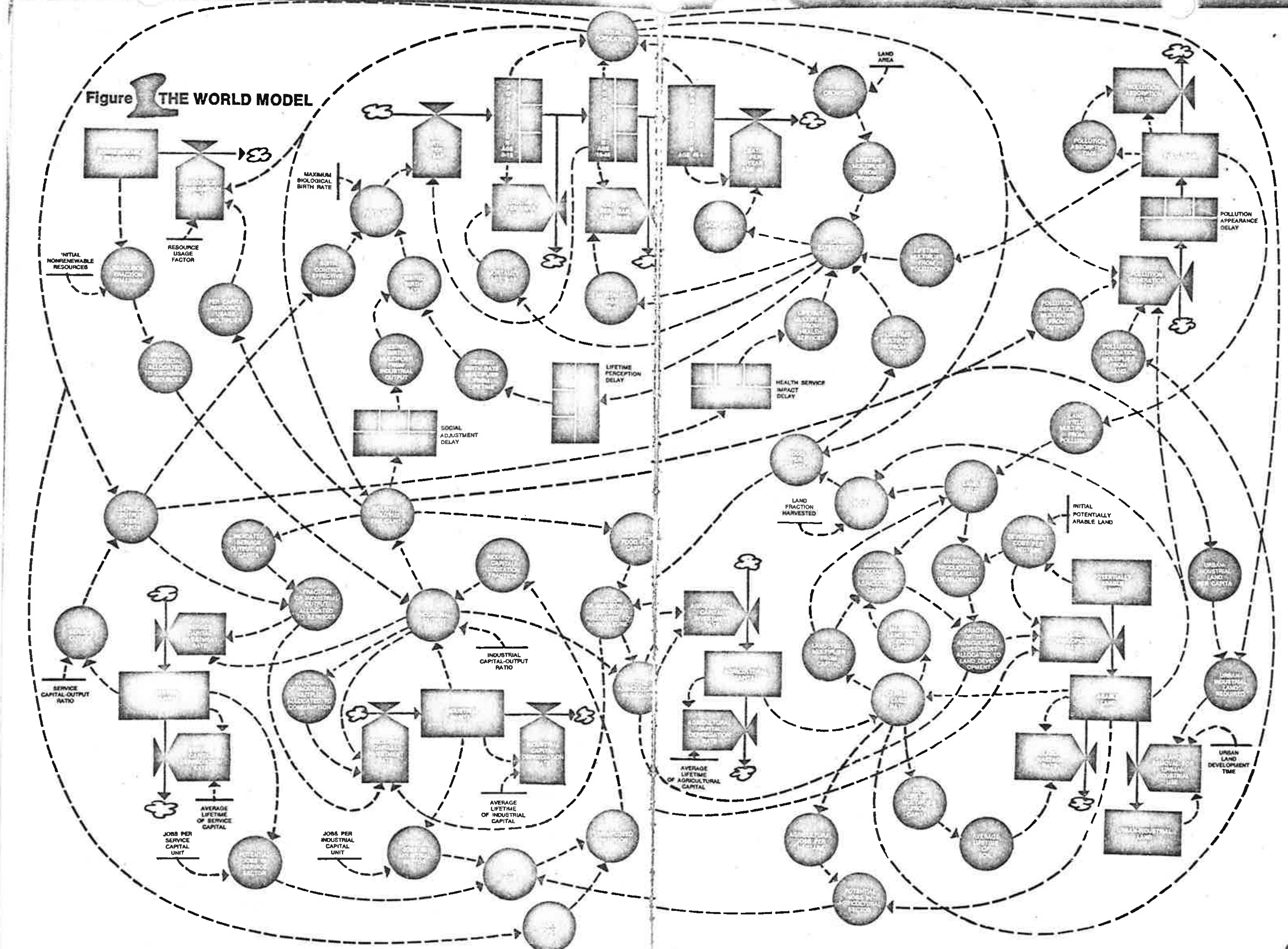


Figure #1

Figure 1 THE WORLD MODEL



Source: Limits to Growth (1972); pp. 102-103

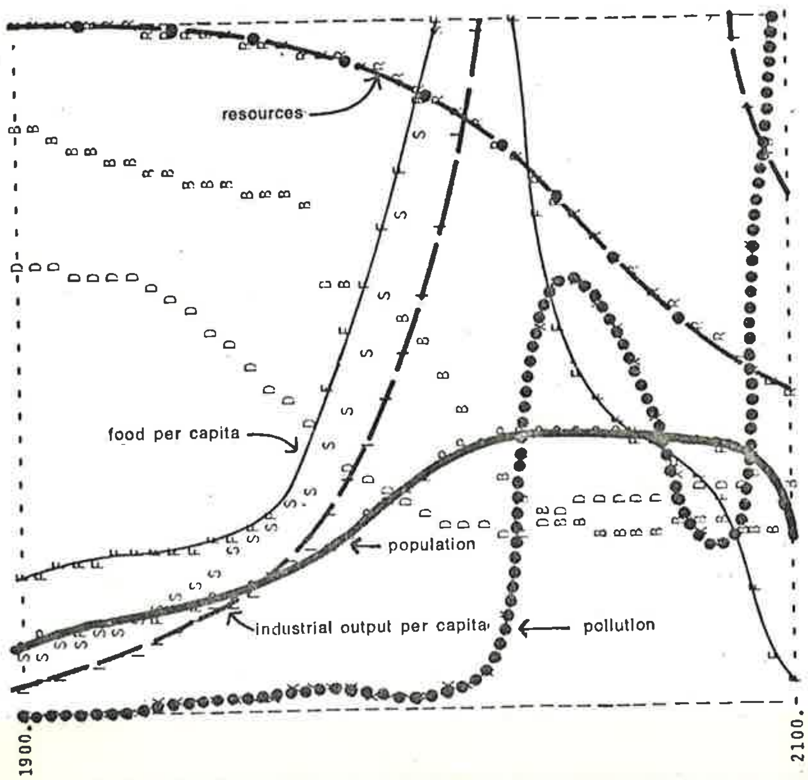
Despite the two most obvious limitations of the M.I.T. model,[3] its prediction of catastrophe within the next fifty to one hundred years is well buttressed by the results of various runs of the model. Given optimistic estimates of the amounts of natural resources available for future use, and using multipliers based on the interactions recorded in 1970, the M.I.T. team concludes that the depletion of unrenewable resources will bring collapse well before the year 2100.[4] In a response to critics claiming pessimistic estimates were made of the reserves, the team doubled the reserves known to the model, and found that a dramatic increase in pollution brought about collapse around the year 2100.[5] This can be understood if one grasps the impact which unlimited resources will have on increased capital investment, which will in turn generate the pollution. In responding to critics that maintained that technology would always be able to produce synthetics, alternatives to the resource system, the reserves were introduced to the model as "unlimited." While the reserves were not depleted, the rise of pollution levels was even more catastrophic, leading to collapse around 2100, with a sharper downward slope of the food and population curves, implying a far longer recovery period.[6]

Responding again to the advocates of technology as the solution, the world model was run with "unlimited" resources and pollution controls. Resources are sustained, and pollution does not become a serious problem. Collapse is brought about by a food shortage, resulting from exproriation of the land by industry in earlier "boom" years, leading to limitations on the amount of arable land. "After that point, as population continues to rise, food per capita decreases. As the food shortage becomes apparant, industrial output is diverted into agricultural capital to increase land yields. Less capital is available for investment, and finally the industrial output per capita begins to fall. When food per capita sinks to the subsistence level, the death rate begins to increase, bringing an end to population growth."[7] Two problems are evident from the preceeding run; those of population growth and agricultural resource depletion. To avoid the second problem, the land yield of 1975 is doubled; the next run thus has "unlimited" resources, pollution controls, and increased agricultural productivity. "The combination of these three policies removes so many constraints to growth that population and industry reach very high levels. Although each unit of industrial production generates much less pollution, total production rises enough to create a pollution crisis that brings an end to growth."[8] Alternatively, one could institute "perfect" birth control in addition to pollution controls and "unlimited" resources. By "perfect" control the authors imply the technological means of control rather than the imposition of such control; as a result, the population does continue to grow, albeit much more slowly: the food crisis is postponed for less than twenty years.[9] Well then, what of the grand, "economy size," ultimate solution: "unlimited" resources, pollution controls, increased agricultural productivity, and "perfect" birth control? The authors describe their run in this manner:[10]

> Four simultaneous technological policies are introduced in the world model in an attempt to avoid the growth-and-collapse behavior of previous runs. Resources are fully exploited, and 75 percent of those used are recycled. Pollution generation is reduced to one-fourth of its 1970 value. Land yields are doubled, and effective methods of birth control are made available to the world population. The result is a temporary achievement of a constant population with a world average income per capita that reaches nearly the present US level. Finally, though, industrial growth is halted, and the death rate rises as resources are depleted, pollution accumulates, and food production declines.

Below is reproduced the computer print-out facsimili representing the interactions of the variables during the last model.[10]

Figure 3 WORLD MODEL WITH "UNLIMITED" RESOURCES, POLLUTION CONTROLS, INCREASED AGRICULTURAL PRODUCTIVITY, AND "PERFECT" BIRTH CONTROL



Essential to the understanding of what appears to be an unavoidable collapse in the world system is the concept of "overshoot," and the perception of "lag times," both of which the authors of Limits to Growth stress. It is pointed out that within the feedback loops an innumerable number of delays occur, delays which can not be affected by technological means.

> They include, for example, the delay of about fifteen years between the birth of a baby and the time that baby can first reproduce itself. The time delay in the aging of a population introduces a certain unavoidable lag in the ability of the population to

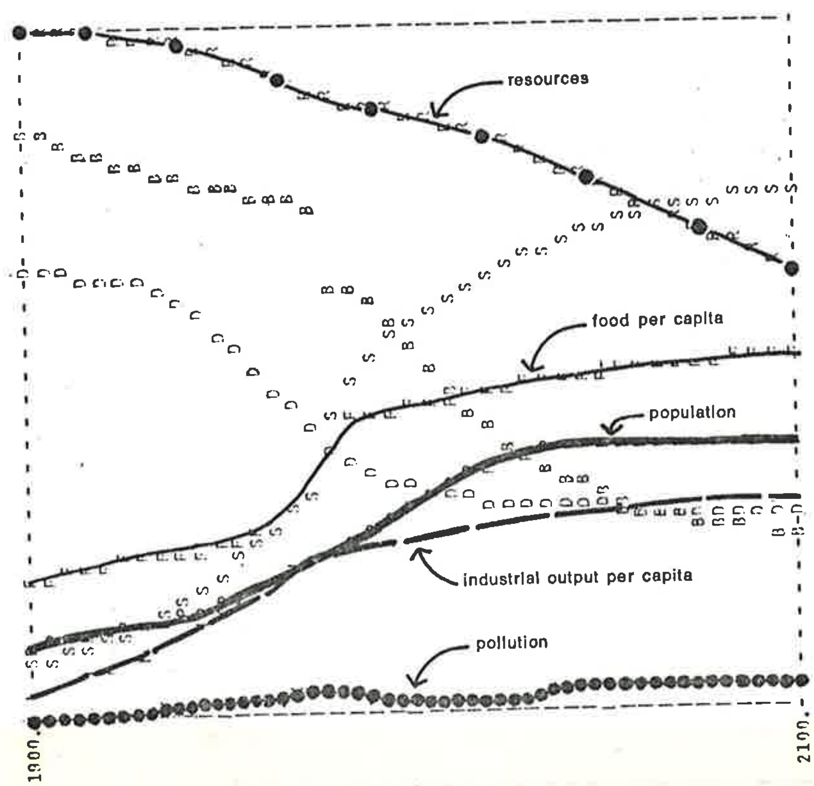
respond through the birth rate to changing conditions. Another delay occurs between the time a pollutant is released into the environment and the time it has a measurable influence on human health. This delay includes the passage of the pollutant through air or rivers or soil and into the food chain, and also the time from human ingestion or absorbtion of the pollutant until clinical symptoms appear. This second delay may be as long as 20 years in the case of some carcinogens [substances tending to produce cancers]. Other delays occur because capital cannot be transferred instantly from one sector to another to meet changing demands, because new capital and land can only be produced or developed gradually, and because pollution can only slowly be dispersed or metabolized into harmless forms. Delays in a dynamic system have [most] serious effects...if the system itself is undergoing rapid changes.[11]

These lag times allow the system to "overshoot" its limitations by delaying the time at which natural constraints will act on the system. By the time such limitations are felt, the system will have grown exponentially to demand far greater resources than are available, and will be faced with collapse when it (the system) becomes too great a burden on the resources and capacities which do exist.

The implications of the model runs described above are complex and boundless, if one chooses to examine the social and political consequences of each modification; but above and beyond these stands one clear lesson: remedial action of the kind explored in each of the model runs above is not enough. Far more serious and comprehensive changes are going to have to be instituted, not only immediately, but throughout the social and economic fabric of the world.

The resources and capacities of the globe are unquestionably limited; the question of how these resources are going to be allocated, how these capacities are going to be utilized, is the most important question we can explore in the few years remaining before the final "overshoot" begins. The M.I.T. team has given us a starting point. Moving beyond their model runs as described before, Forrester, Meadows, Randers, and the others engaged in extensive testing of various programs combining action in each of the variable fields. They conclude Limits to Growth with "Stabilized World Model II," reproduced below.[12]

Figure 4 STABILIZED WORLD MODEL II



The policy changes required to produce the above pattern include:[13]

1. The population has access to 100 percent effective birth control.
2. The average desired family size is two children.
3. The economic system endeavors to maintain average industrial output per capita at about the 1975 level. Excess industrial capability is employed for producing consumption goods rather than increasing the industrial capital investment rate above the depreciation rate.
4. To avoid a nonrenewable resource shortage...resource consumption per unit of industrial output is reduced to one-fourth of its 1970 value. [In 1975]

5. To further reduce resource depletion and pollution, the economic preferences of society are shifted more toward services such as education and health facilities and less toward factory-produced material goods.

6. Pollution generation per unit of industrial and agricultural output is reduced to one-fourth of its 1970 value.

7. Since the above policies alone would result in a rather low value of food per capita, some people would still be malnourished if the traditional inequalities of distribution persist. To avoid this situation, high value is placed on producing sufficient food for <u>all</u> people. Capital is therefore diverted to food production even if such an investment would be considered "uneconomic."

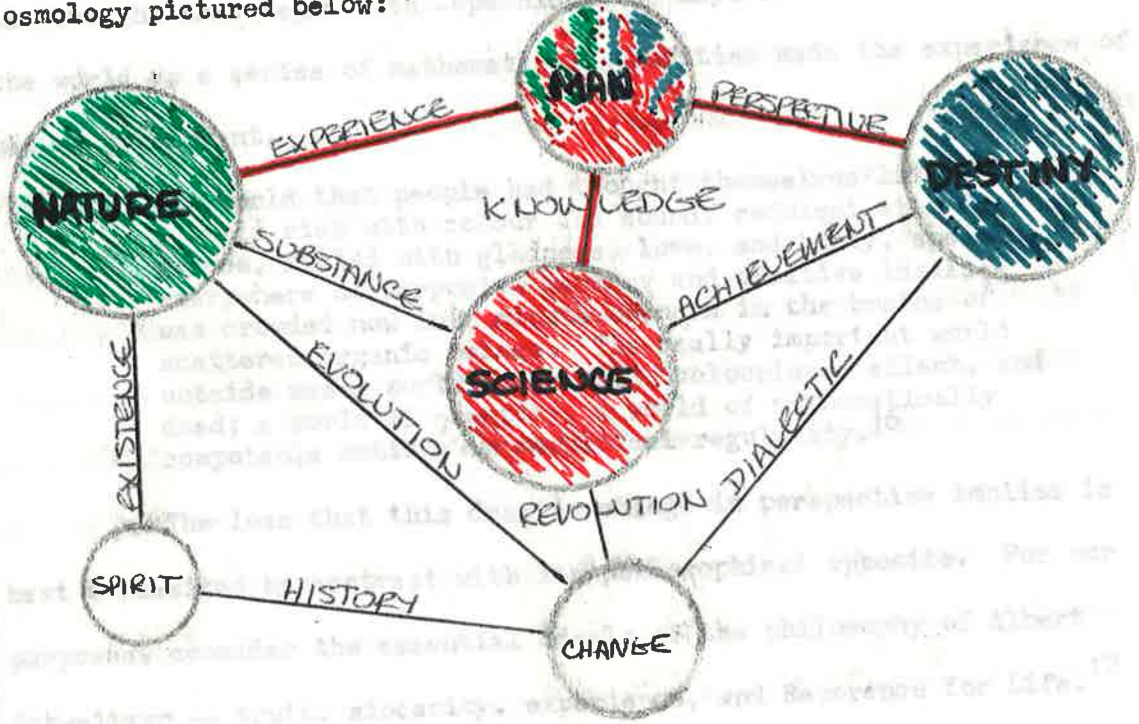
8. This emphasis on highly capitalized agriculture, while necessary to produce enough food, would lead to rapid soil erosion and depletion of soil fertility, destroying long-term stability in the agricultural sector. Therefore the use of agricultural capital has been altered to make soil enrichment and preservation a high priority. This policy implies, for example, use of capital to compost urban organic wastes and return them to the land.

9. The drains on industrial capital for higher services and food production and for resource recycling and pollution control under the above [eight] conditions would lead to a final low level of industrial capital stock. To counteract this effect, the average lifetime of industrial capital in increased, implying better design for durability and repair and less discarding because of obsolescence. This policy also tends to reduce resource depletion and pollution.

In reading the above material, one hopes that the reader noted the radical changes these policies imply for the Western industrial estate. Resource consumption is reduced. External costs are borne. "Uneconomic" investment in agricultural productivity is suffered. "Ecologically cost-effective" becomes the new catch phrase. Last, and certainly most difficult in view of the traditional craving for the "new," for the innovative, the policy changes demand a less disposable, more lasting, less exploitive (in terms of technology transfer) capacity to be encouraged by the Forrestonian ethic. The question which will concern us once we progress from this introduction will regard the nature of the increasingly pervasive multinational corporation, and the manner in which it may promote or hinder these policy changes, both today in its transfers of technology, inter alia, and in the future, when it is asked to pay its fair share of taxes and external costs. The resources are limited and are no longer within the sovereign domain of the nation-states. Increasingly it is the multinational corporation that dominates resource reserves and their use,[14] to the detriment of population, which exerts less control on the government than do the corporations. The role of the multinational corporation as an allocator of resources and an exploiter of technologies and people is of obvious concern to us today, the more so as we realize how little effective control the "sovereign" governments (as autonomous institutions) may bring to bear without precipitating an international incident. Thus another aspect of our work will enumerate alternatives available to the nation-states (particularly the lesser developed countries) if they are to control the multinational corporations.

We have briefly examined the state of "Spaceship Earth," and now have a physical context in which to view the activities of the multinational corporation. It remains for us to discuss the technological metaphysics of the day, before finally moving out of the introduction and into the body of the paper.

Today there is only one ethic of any consequence: the ethic of technical efficiency, the ethic of "performance" according to the standards of a working society. The means by which men judge one another's behavior is no longer tied to the natural world or to a spiritual God representing the best of the species, but are limited to the roles and instruments of the scientific estate. Consider for a moment the simple cosmology pictured below:[15]



The force of this picture, if any is to be found, lies in its portrayal of man as at least a three-faceted being, whose life will be shaped accordingly; a creature whose association with nature provides experience, a creator whose use of the scientific method fabricates knowledge, and a cogitator whose systhesis of the acquired experience and knowledge suggests a perspective regarding the individual and collective destiny of man.

Our destiny, and the destiny of those that follow, is determined by the perspective we achieve, given our experience and knowledge, and by our achievements, given the substance of nature and the science of man. It follows that a change in the natural foundation, or differences in the application or pervasiveness of science, will alter experience, knowledge, substance, perspective, and accomplishement. Destiny, never an absolute, will be revolutionized. Copernicus was one of the first revolutionaries.

Civilization today is certainly far removed from those precepts advocated by Schweitzer for a harmonious and continuing relationship with our world and one another. Man has been turned into a skeptic, a "no-think"being, distinguished from other animals only by the complexity of his purchased and artificial environment. The incredibly technical and extensive nature of "knowledge" precludes the typical man from grasping and mastering more than a small segment of that which is known. He is forced to accept as "fact" increasingly frequent and increasingly unreliable "reports" from others, individuals or institutions.

Civilization is also lacking in that it discourages sincerity. Consider the Rousseauian concept of the effects of science on society. It is clear that with the generation of tomes of knowledge, and with the increasing distinctions of talents, instruments, and artificial bolsterings of the image each conveys, it is increasingly possible to play a "role" removed from whatever natural experience might have suggested.

Experience itself has been corrupted. We noted before that those things exterior to man were crucial to his perception of himself. Today one can suggest that society has corrupted the perceptions of the people by offering too many seductive "objects" which disturb the pattern of man's relations with the more elemental things, diversifying his interests, warping his perspectives, and re-ordering his values. By creating a functional society where men are defined by the roles they play within the organization, and by creating a consummer culture where men are further defined by their possessions, the Western industrial estate has substituted a new standard of judgement and association for the old.

What we are doing in today's society is providing pseudo-stimulation for ourselves. The commodities of today's "performing" society are an "experience" which is corrupting the individual's (and by perpetuating extention, the organization's) perception of his true needs. By providing commodities which in turn provide degrees of satisfaction and stimulation (however muted and removed from the satisfaction and stimulation available in times past) the society encourages and imposes on the individual false needs more compatible with the structure of the society, and oblivious to the natural state of affairs (defined as all that external to or autonomous relative to the structure).[19]

Marcuse defines false needs as "those which are superimposed upon the individual by partiuclar social interests." These needs have "a societal content and function which are determined by external powers over which the individual has no control..."[20] Beyond the imposition of the common experience (and thereby a common ego and superego), Marcuse points to other techniques which are used by productive society to further repress man's instinctual tendencies and divert energies (and stifle counterproductive thought) into the service of the dominant Reality Principle. The body can be desexualized; the sensual nature can be sublimated or repressed; nature can be controlled by the apparatus (thus restricting the fields of expression and stimulation); and leisure hours can be controlled or at least influenced.

In mastering the environment, and the individual's communion with that environment, technology has limited the amount of energy which can be expended counterproductively, and drastically hampered the stimulation of thought by the environment. It is increasingly difficult

Writing in 1954, Jacques Ellul, a native of France, outlined the extent to which technological imperatives dominated civilization. His work wasn't translated into English until 1964. In <u>The Technological Society</u>, after discussing the history and character of technique, Ellul goes on to relate technique to the economy and to the state, finishing with a discussion of the latest mode of technique, human techniques. Much of what he says points convincingly to the multinational corporation as the ultimate successor to the state as the leading manifestation and proponent of the technological ethos. Although Ellul continues to portray the state as the leading handmaiden of technique, his phenomenology, applied to recent work on the transfer of technology (discussed in the text) attaches greater potential, if not actual, importance, to the role of the multinational corporation, which appears to dominate its home governments and subvert those of its hosts.

In brief, the chief characteristics of technique as ennumerated by Ellul are automatism, self-augmentation, monism, the linking of techniques, and the autonomy of technique.

Because the technological ethos demands adherence to the "one best way," Ellul points out that once the alternatives have been faithfully evaluated, there is only one possible choice. To use his example: with respect to magnitude, four is evidently greater than three. Ellul believes that comparison of two techniques will lead us to as absolute a conclusion. The selection of techniques will be sequential and automatic. In this context Ellul notes that capitalism, with its system of patents and its deliberate subversion of techniques to other ends (political?), is inherently incompatible with the evolution of techniques, and will for that reason eventually succumb. We tend to read "capitalist state" for capitalism, the old laissez faire state supporting the "invisible hand." In this sense, capitalism is certainly dying rapidly. In the light of Galbraith's analysis of the American economy, and Ellul's own comments on the new human techniques (such as propaganda), there is no question but that "free enterprise" in the old competitive sense will soon be a thing of the past. This does not preclude the continued expansion of the present oligopolists, and may in fact sustain their expansion, to the point where they may divide the world into functional or geographical sectors. The ultimate organizational chart may look like the one pictured below, with each corporation controlling one of the triangles on a global basis, or all of the triangles on a regional basis. The ultimate corporation in charge of energy, for example, would result from a merger between Standard Oil of New Jersey (Exxon) and Royal Dutch Shell, a merger which would soon lead to the assimilation of the other major oil/energy companies, which would then be cast in the relative role of "independents."[23]

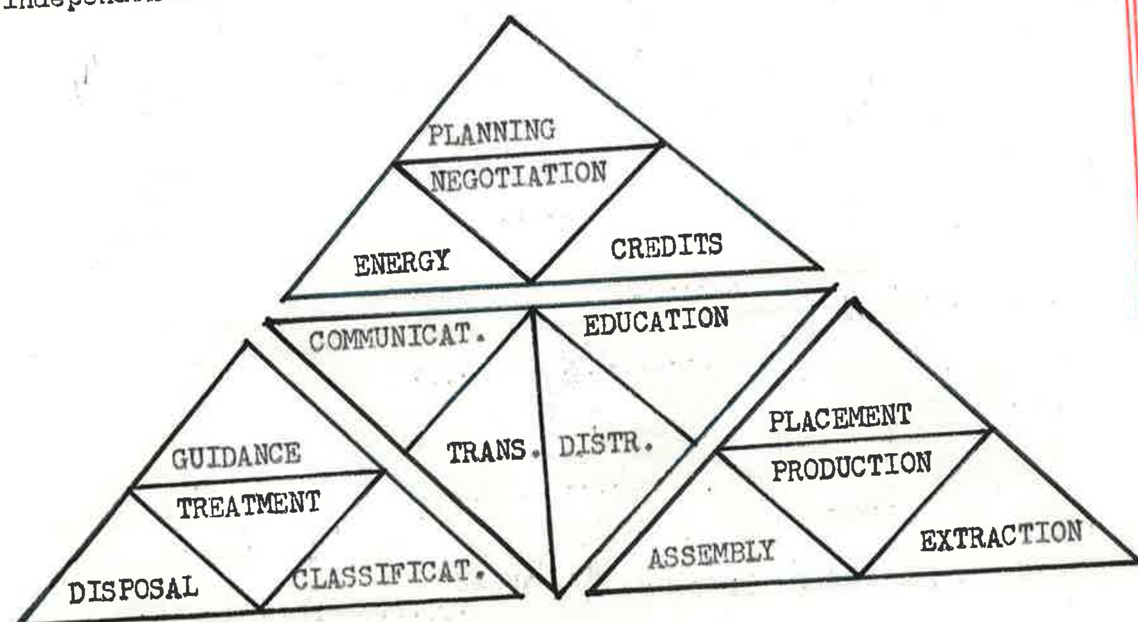


Figure #6

The second aspect of technique in this vein is pervasiveness. Any previously spontaneous or irrational activity coming in contact with technique can not help but fall under its sway; as examples Ellul notes the development of political technique by Lenin and of military technique by Hitler. Conflicts between two or more social groups (or institutions!) must be resolved in favor of the group possessing the greater technique. The relationship between the multinational corporation and the patent system will be explored briefly in the section on the transfer of technology; for now we note that the multinational corporations (limited to 187 if one accepts the definitive characteristics of Raymond Vernon, introduced in the section on multinationals) have greater budgets, vaster organizations, and more incentives for innovation than do the state bureaucracies. In this sense, the corporation seems the more powerful contender.

The process of self-augmentation refers to the manner in which any single technique leads of necessity to other subsequent techniques, each of which may combone in turn with other techniques to produce another inevitable development. This law of self-augmentation is considered important by Ellul in that it explains the unevenness of technical development, the disparities that exist not only from geographical sector to sector, but among the various industrial sectors as well.[24] For our purposes, self-augmentation is a frightening conceptualization of what will happen in the lesser developed countries as soon as their technology assessment agencies begin operating effectively, demanding only the most sophisticated technologies. Only if they can incorporate a radically different perspective on growth from that prevailing today might they slow the process.

The unity of all techniques, the monism of the technological phenomenon, is its third characteristic. In this area, Ellul scorns those who would seek to distinguish between "technique" and its "application," maintaining that since technique is by definition the "one best means," it defines its use as well, since no other alternative can compare. This monism emphasizes the lack of distinction between peaceful and military technique; each technique is so closely connected to the others than none can be isolated, labeled "good" or "bad" or restricted in any serious way.[25]

All techniques are linked to one another, and just as a single technique will be self-augmenting, a more general technique will be linked to, will necessitate, another. Ellul notes that the first order of the world was economics, from which state constraint proceeded, after which mind control was the pre-determined order. The state emerged as the co-coordinator for the multiplicity of techniques involved in the new and pervasive economic system, one encompassing even the worker's social life, as Marcuse has demonstrated so convincingly. Since co-ordination of economic techniques left the actions of the individual to chance, the latest order, that of mind control, was inevitable, and is seen at work in the propaganda efforts of the state and the advertising budgets of the large corporations.[26]

Technical universalism is reflected in two ways -- in the first, Ellul points to the presence of technique in all georaphical corners of the world; in the second, he notes the qualitative uniformity of technique; although the "one best means" may vary according to climate and other conditions, the method and general nature of the technique will be comparable and compatible with all techniques elsewhere.

The momentum which technique carries within itself is responsible for the subversion of other cultures -- not the political manouverings of the great powers. It is in their capacity as technical superiors that the United States and the U.S.S.R. are able to subordinate other powers. This leads us to conclude that as multinational corporations become the more capable manifestation of new technique, they will do the subordinating, all things remaining equal. Technical necessity promotes the same educational system, the same languages (English, Fortran, Cobol), and the same respect for technique to the exclusion of all else, including political ideology and religious myths. Cultures are disintegrated as technique promotes "social plasticity and a clear technical consciousness." The traditional groups are overwhelmed by the imperatives of technique, leading to a loss of the traditional perspective, and establishing an obligation to the technical perspective, for lack of a viable and visible alternative. "Development involves economic planning, displacement of populations, mobilization of the local economy, acceptance of authoritarian political power, modification of local moral habits and traditional mentalities; in short, a New Deal of the Emotions!"[27] Ellul looks to the universalism of technique to create the required bond between men, each of whom will have the same perspective of his world, the same attitude about methods. On another level, we might look to the multinational corporation, the leading international manifestation of the technological ethos, as a new focal point for loyalties once reserved for the nation-state. The role of the Japanese corporation as family-superior provides a glimpse of future ties between individuals and their organizations. The impact of an individual on his government, even at the very local level, has become negligible. Daniel Bell (a recent guest at Muhlenberg) has pointed out his belief that any future impact of individuals must be found in their roles as members of organizations. Only the organizations will be able to affect the state of affairs on a significant level. The incentive for an individual to become an integral part of a major organization today for these reasons becomes an imperative in the future. What better organization than the multinational corporation?

"Autonomy is the essential condition for the development of technique" if the fundamental law of efficiency is to be adhered to. The goal must be separated from the mechanism; only means of best achieving the technical end must be considered, and the most efficient means must always be chosen. Technique must, is, autonomous from economics, politics, and the social situation (although it continues to dominate these). Two consequences arise from this autonomy of technique: Ellul insists that we are faced with a choice of "all or nothing;" once a single technique is accepted, it will augment itself and eventually dominate the individual completely. The second consequence of autonomy leads us back to our earlier comments on the nature of our cosmology. Technique becomes the new religion, "at once sacrilegious and sacred." The technique will insist on a new morality[28] and it will provide an entire metaphysics for man, with its own god, priests, taboos, and rites.

Narrowing now our review of Ellul to deal only with a few direct comments pertaining to the multinational corporation, we find his comparison of the corporation to the state significant:

> It is clear that enterprises such as Citroen or Bata are of such dimensions that their administrations are comparable to the administration of the state. Standard Oil has international interests of such magnitude that its international policy is like that of a state....it appears that, starting with a certain critical mass, sociological and technical laws are identical for private and public enterprises. (Society, 248)

> Indeed, it may be said in general that the state lags behind the great corporations in this respect [solving technical problems] and that it is compelled to modify and rationalize its administrative, judicial, and financial systems on the model of the great commercial and industrial enterprises. (Society, 249)

In many ways, then, the multinational corporation is in fact superior to the state; if this is the case, and if the sociological and technical laws are the same for institutions of similar mass, then it seems reasonable to consider the multinational corporation a credible contender for the sovereignty over resources and peoples traditionally inherent in the nation-state.

Ellul ennumerates the following techniques, which he indicates been applied by the nation-state; consider how easily the multinational corporation has utilized these, and has in fact introduced most of them:

> Industrial and commercial techniques of all orders (the state becoming state-boss to an ever greater degree)
> Insurance and banking techniques, including social security, family allotments, and nationalized banks
> Organizational techniques, including co-ordinating commisions among all services, and new inspection systems
> Psychological techniques, including services of propaganda, vocational guidance, and psychotechniques
> Artistic techniques, including radio, television, a more or less official motion-picture industry, city planning, and controlled tourism
> Scientific techniques, including the various centers of scientific research

Planning techniques, (with arbitrary objectives), including general economic planning, transport planning, and city planning
Biological techniques (already a reality, although rare), including human stud-farms, euthanasia, obligatory vaccination and medical inspection, and social assistance
Sociological techniques (for the management of masses and public opinion) (Society, 253)

Bearing in mind that this was written in 1954, fifteen years before I.T.T. was publicly recognized for its machinations, we might consider how much more augmentation of power and technique has taken place within the multinationals than within the state bureaucracies. Looking at the first category would be superflous. In addressing the second, that of insurance and banking techniques, we have only to realize how vital a source of funds insurance companies are for the multinationals, a case well illustrated by I.T.T.'s heavy-handed acquisition of the Hartford Insurance Co. in the United States, and numerous similar companies in England.[29] Then we might look at the interlocking directorates among the major corporations, notably those associated with Chase Manhattan and the First National City Bank.[30]

The third category, organizational techniques, also allows us to attibute most of the innovation to the corporate sector. While large multinational corporation are also somewhat inefficient and overweight, they are not nearly so lethargic as the bureacracies of government, whose survival in the past has not depended on constant innovation.

Psychological techniques are shared by the state and the corporations -- but when we consider the impact corporate advertising has through the mass media, it seems the most omnipresent. Artistic techniques are closely allied.

Scientific techniques are not only inherently innovative, and thus closer to the domain of the multinational corporations, but scien- tific research is no longer as financially dependent on government sup- port and initiative as it once was. The corporation no longer needs the "helping hand" of government to perpetuate their empire. Since 1968, according to Keith Pavitt, the level of research and development expen- ditures within the industry have exceeded those of the government. "In 1968 industrial competition and growth requirements replaced strategic competition and defense requirements as the biggest single determinant of the allocation of scientific and technological resources in the non- Communist world."[31]

Planning techniques, not only within the home countries where the symbiotic relationship exists between planning agencies and the corporations being "regulated," but also within the host countries, where investment decisions by the multinationals can have a dramatic effect on national plans, the balance of payments, *inter alia*, are unquestionably becoming the *de facto* domain of the major economic in- stitutions.

Biological techniques are still somewhat removed from the spheres of activity of both the states and the corporations, but almost certainly, if major innovation does come before collapse, it will be the multinational corporations that move to capitalize on the new techniques first, *unless* the state deliberately chooses this technique as a means of re-asserting its dominance as the leading technical in- stitution.

Sociological techniques, such as "market research," and the effective management of public opinion (ideally demonstrated during the recent oil "crisis") continue to increment the power of the MNCs.

The primacy of technique over the "state" of the past involves both the new found prominence of technicians in the administration of the state, and the increasing suppression of ideological and moral barriers to technical progress, as elaborated upon by Marcuse. As the affairs of state became more complex, and techniques became available for preemption by the administrative branches of government, "politics" became a thing of the past.[32] Admittedly the remaining politicians are able to corrupt the system to serve themselves; the incumbent President serves as the highest example of this. Yet he too is subject to the imperatives of his own administrative force, the majority of whom are technicians, and can be expected to succumb completely eventually.

No longer do ideological or moral concepts serve to guide the affairs of state. The prevailing morality and ideology are unquestionably determined by the requirements of those in power; right now, the so-called "perversions" are unacceptable, as is existential awareness, because of their ability to distract the worker from his mechanical routine.[33]

Our universe has been limited to tierra firma; the world model has shown just how limited that universe is. Our metaphysics has been examined; in contrast to earlier times when man was defined by a far vaster cosmological arena, we find our metaphysics as limited as our universe -- the technological one. The nation-states, among whom the physical and ideological resources of the universe were once divided, are increasingly being deprived of their role as sovereign to their peoples. Our antagonist, whose nature we will consider in the above context, is the multinational corporation.

The Nature of the Multinational Corporate System

As many definitions of "multinational corporation" have been proferred as have been of "power;" so we will begin by defining both for the purposes of this study. While the manifestations of power may vary widely, power per se we will consider the capacity to mobilize physical and human resources for the accomplishment of intended effects, with recourse to some sort of sanction(s) to encourage co-operation or compliance.[1] This definition obviously characterizes the traditional nation-state. Today it is also characteristic, on an equally grand and global scale, of the multinational corporation.

In our opinion, a multinational corporation should be so extensive, organized, and wealthy that it should be able to survive the collapse of any state with which it is associated. This, however, is a definition meant for the future. Given the general ethnocentricity[2] of most of the so-called multinational corporations, it is doubtful that many of the most powerful entities, even those isolated by Vernon,[3] would survive the demise of the United States, or, if relevant, Great Britain.

Another more workable definition is called for; because the investigation by the United Nations is the most eclectic and the most recent, theirs will be adopted. "The term 'multinational corporation' is used here in the broad sense to cover all enterprises which control assets - factories, mines, sales offices and the like - in two or more countries."[4]

As the U.N. study points out, this definition has the advantage of including all measures of the problem, such as those associated with special services such as banking, or nationally-oriented small firms,[5] both of which might encroach seriously on the sovereignty of a host country even though failing to meet the requirements of the more restrictive definitions suggested by others. The major advantage of our broad definition is that it forces the examination of a greater scope of data.

Multinational corporations are characterized by size, concentration, and diversity. Such corporations can expect to have annual sales of hundreds of millions of dollars. According to Vernon, only those with sales of over $100 million should be considered candidates for status as multinationals.[6] Multinational corporations are generally oligopolistic, dominating world markets through their exploitation of advertising techniques or special technologies unknown or unmanageable by others.[7] At the same time, their unique resource management encourages and demands the creation and control of a large number of foreign-based affiliates or subsidiaries.[8]

Three dimensions of the MNC are significant. Ownership and management patterns reflect the dominance of the Americans, the British, the Germans, and lately, the Japanese. "Of a total estimated stock of foreign investment of about $165 billion, most of which is owned by multinational corporations, the United States accounts for more than half, and over four-firths of the total is owned by four countries, the United States, the United Kingdom, France, and the Federal Republic of Germany." "Moreover, foreign direct investment tends to be concentrated in a few firms within each home country. For the United States, about 250 to 300 their natural resources has reduced this dominance significantly. MNCs have been forced to offer better terms, newer technologies for advanced stages of processing, and participation in processing and marketing profits.[18]

The importance of sophisticated technologies and world-wide organization in maximizing cost advantages in the production of goods in the manufacturing sector have naturally led to the contemporary predominance of MNCs in this field. Goverments are harder put to gain control of the proper technologies, to obtain access to the required and diverse sources, and to acquire the necessary expertise and management skills, and are therefore often loath to interfere with activities in this area. Increasingly however, the position of the MNC in the domestic affairs of host countries is becoming tenuous. The trend seems toward greater insistence on contract or "turn-key" arrangements, whereby multinational corporations construct and manage factories on a basis of straight fees and decreasing involvement. This will encourage service industries such as banking, and will turn some of today's MNCs to the more permissible service of consultation.

The importance of a developed infrastructure and certain social attitudes has led to the concentration of multinational corporations in the developed areas of the world. According to the U.N. study, two thirds of the book value of foreign investment is so distributed.[19] On the other hand, we can not minimize the importance of the MNC to the lesser developed countries, and should bear in mind its greater impact on LDC economies, which follows from the greater proportion of the national GNP which it can affect.[20]

Approximately one quarter of the American foreign investment is found in developing countries. Of this, 70% is in Latin America, with the rest fairly evenly distributed between Africa, Asia, and the Middle East. Portugal, France, the United Kingdom, Italy, and Belgium have a higher portion of their investment in the LDCs, reflecting old colonial ties as well as the immutable national character of the American market.[21] The Japanese again stand out as a special case; sixty per cent of their foreign investment is found in the developing countries, most of it in Latin America and Asia.[22]

In summary then, we find the multinational corporation extremely large, wealthy, and organized; it is oligopolistic, and tends to concentrate on manufacturing and petroleum extraction. While most investment is found in the developed countries, the impact of the MNC on those LDCs with which it deals is greater as a consequence of the greater role of the MNC relative to the total GNP of the the LDC.

The Impact and Associated Tensions

In delineating the arena entered by both the nation-state and the multinational corporation, it is important to recall our earlier definition of power. Given a fixed universe, the globe, the sovereignty of each nation-state has previously preserved its status as the predominant allocator of resources. The nation-state was generally held responsible for protecting "life, liberty, and property" and was able to bring to bear appropriate sanctions as required. Today, while the nation-state retains many of its more structured sanctions, and has even added a few more insidious ones with regard to individuals (such as the extension of electronic surveillance), it has lost its predominant position, and must now share its authority with many transnational organizations. These organizations (the church is a most visible example) influence domestic and foreign policy by interfering directly with the societies of the nation-states, by-passing the machinery of government. The importance of the multinational corporation in this process of subversion cannot be underestimated -- straight-forward trade, controlled by sovereign governments, is no longer the primary medium of exchange. International production, "defined as production subject to foreign control or decision and measured by the sales of foreign affiliates of multinational corporations has surpassed trade,"[23] and with it, sovereignty.

The MNC and the Home Country. The multinational corporation in the developed countries serves as one of the primary integrative mechanisms. With the exception of the United States, where most of the multinationals are domestic corporations, most developed countries serve as both host and home countries. A few, such as Greece, Spain, New Zealand, and South Africa serve primarily as hosts.[24] An interdependence among the developed nation-states is thereby assured, although it varies considerably from industrial sector to sector. The degree of foreign ownership outside the United States will tend to be higher for petroleum refining, very high for the computer industry, and high for transport equipment and electrical machinery.[25]

The ability of the multinational to affect home country policy is considerable. While we will examine more direct policy impacts in a moment, we pause to consider the more pervasive and subtle influence of the MNC upon its home government, in this case the United States. Dennis Ray has written on the subject, and begins by distinguishing between crisis, calculated, and axiomatic decisions on the part of government. Axiomatic decisions, including "the broader assumptions about international society and the role of one's state" are most subject to manipulation by forces favorable to the MNC.[26] Ray examines the membership of the official policy-making elite, and concludes that a significant number of its members are recruited from the ranks of the multinational elites. We will recall Galbraith's more general suggestion along these lines. Ray proves it.[27] Members of the government elite then, may be considered pre-disposed toward approval of multinational goals and means. Beyond simple recruitment, Ray ennumerates means of direct and indirect, formal and informal channels of corporate influence. Directly formal means include recruitment, joint ventures, consultation, and registered lobbying. Indirect formal means are dependent on access through intermediaries --

foreign governments, congressmen, foundations, non-profit organizations, study groups (such as the Council on Foreign Relations!), party officials, and trade associations. Direct informal means include recruitment on a more subtle scale, common socialization, and family, school, and elite club ties. Indirect informal influence is reflected through public opinion and voting patterns.[28]

Within its own organization, multinational management can take actions which could aggravate the balance of payments situation, disturb employment patterns, violate anti-trust and trading-with-the-enemy sanctions, and deplete the home technology resources by transferring such technology indiscriminately.

By avoiding American taxes through such mechanisms as reduced transfer pricing and minimal consultation fees for subsidiaries, MNCs can significantly reduce tax revenues for the home country. Transfer pricing refers to the arbitrary price placed by corporations on goods transferred between branches. Since these prices are not subject to market condition, being completely in-house transactions, they may be set high or low, thereby allowing the accumulation of paper profits on the books of the subsidiary with the most favorable tax conditions. Fiscal policy is then defeated. Monetary policy, which relies primarily on affecting interest rates, can also be defeated easily, since the MNC may borrow from foreign sources of capital at will. Finally, the stability of the dollar or the pound can be severely shaken by planned or accidental currency exchanges on the international market.

Expensive labor can be avoided by moving plants overseas to areas where tax holidays and low wages make the move worthwhile, thereby temporarily aggravating the unemployment situation at home.

The final three issues deal with the extra-territorial jurisdiction of the home country. The United States in particular has attempted to regulate the activities of multinational subsidiaries by invoking anti-trust actions. This has generally failed, primarily because other sovereign interests have been involved (for instance, the local minority partner, a pawn of its government) and have protested vigorously to interference in local affairs.

Trading with the enemy has in the past been a major sanction imposed by the U.S. government on its corporations. This is no longer feasible, in that it must now attempt to control the activities of subsidiaries whose trade with the enemy would contribute to the economic welfare of other sovereign governments, who do not like to have the U.S. tampering with their economic exchanges.

Finally, a more pronounced issue in the recent past, the transfer of home technology, deals with the willingness of the MNC to export its technology to subsidiaries if other cost factors make the action profitable. Domestic trade associations object to this transfer, since they feel that it will eventually undermine their own position.

The MNC and the Host Country. The affinity between the MNCs and the developed nations is not evident in the lesser developed nations. The most significant factor related to this disenchantment appears to be the lack of business background (and the consequent perspective) among LDC political leaders. Ashok Kapoor, who examined the Asian situation, notes that of the 547 individuals reaching ministerial level (China is presumably not included), only 13% possessed a business background.[29] Added to this initial discrepancy of perspective, other factors combine to exacerbate the situation. Hoskins has ennumerated eight causes of the LDC's nationalistic-xenophobic reaction against the multinational corporation: 1) the similarities to the colonial situation of "we the people, they the exploiters," 2) the intended or implied expressions of superiority by MNCs or their representatives, 3) the perceived foreign allegiance of MNCs or their representatives, 4) the visible success and profit of MNCs in situations where local entrepreneurship either failed, was displaced, or took no initiative, 5) the minority-group behavior of the typical overseas executive, 6) the compounding by local demagogues of the initial suspicion of complex foreign organizations exerting influence on local situation, 7) the inability of the LDCs to join the wealthier ranks of the MDCs, of which the MNCs are the most visible reminder, and 8) the widespread "exploitation complex," fed by the visible use of local capital by the MNC, its repatriation of profits, and its overwhelming of local entrepreneurs.[30]

Of all the above causes, the most tangible, and therefore the most inflammable, issue is that of local sovereignty over local affairs. The inability of the host country to restrain home country influence over the multinational corporation's operations in its area is galling. The inability of the host to deal severely with the MNC without home country interference (for instance, in the case of expropriation) is seen as another example of the forced deterioration of the LDC position relative to the developed sovereign states.

We do not mean to over-emphasize the extent of multinational involvement in the lesser developed countries, nor to imply that home country interference is a matter of course. A fairer representation would acknowledge instead the inflation of all conflicts into extremely tense and visible affairs as a result of LDC sensitivity to any foreign impingement of host country perogatives. The areas in which such encroachment is possible are many.

Since the developing nations are so concerned with modernization, growth, and raising the standard of living, the area of national policy planning is of paramount importance. The impact of the multinational corporation on the balance of payments, employment, and the transfer of technology is directly related to the degree of success achieved by local policy-makers.

The multinatinational firm can have a direct impact on the degree and orientation of growth achievable by the host country, through the initial decisions of the MNC regarding the nature and extent of its direct investment in the nation concerned. The conditions which the MNC might set before entering the country will also have long-range implications. While such advantages are on the decline, multinational corporations continue to expect tax holidays, reduced tariffs, and few restrictions on profit repatriations. The loss of this revenue and capital can seriously affect the possibilities of long-term and balanced growth on the part of the LDC (for instance, it will be less able to subsidize needed educational facilities).[31]

We have already noted how the monetary and fiscal policies of <u>home</u> countries can be side-stepped. The subversion of host country policies can only be far worse and more detrimental to over-all development, however defined. While transfer pricing can be used to bring in paper money in taking advantage of lower tax rates, it is more often used as a means from one currency to another, or revising its billing and payment policy to take into account pending reevaluations and deevaluations of host currencies. While the former is generally used, if at all, with the more developed home countries, the latter can mean great saving for the MNC and loss for the host economy. For example, the MNC aware of a pending devaluation might choose to delay the payment of outstanding debts until after the devaluation, or, in the case of a reevaluation, to pay the entire debt ahead of schedule. We might mention that while such options are available to the MNC, they are unlikely to be exercised as a matter of course, since MNCs are not by nature speculators, and do not seem to care for the risk involved.

The socio-political implications of MNC involvement in the economy of a developing nation are extensive. Inappropriate lifestyles and desires may be introduced. The creation of wealth, which is not equally distributed, undermines the efforts of the government in that direction. The involvement of elites in managing and acquiring this wealth further increases the gap between the elites and the masses.[33] If industry becomes a predominant force in a previously agricultural area, the pattern of land tenure is likely to change, to the detriment of peasant's position. The preemption by the MNC of the market in its chosen sector will affect the class composition in the developing country, increasing the number of blue collar workers and decreasing the number of entrepreneurs and the middle class. Urbanization and associated problems will undermine the stability of the local government, as will the requirement for premature infrastructure development.[34]

The MNC and the International System. We have examined the manner in which the multinational corporation finds itself dealing with the sovereignty of home and host countries. Each of these issues has its obvious international ramifications, as evident for example in the attempt by the United States to expand its sovereignty indirectly. In a world so closely interrelated by "indirect" means such as the MNC, it is no longer possible to claim jurisdiction over such means without upsetting other international actors. At this point, then, the MNC is a source of continuing jurisdictional conflict; the situation is not improved for lack of an international agency concerned with the regulation or even the monitoring of multinational enterprises. There is no real legal code or agreement among all or many nations dealing with the transnational activities of the MNCs. (Although some progress has been made by the European Economic Community and the Adean Pact countries[35] along these lines; the EEC has created its own "Competition Law," and the Pact countries are presenting a united front in demanding certain concessions from MNCs interested in investment opportunities; perhaps most significant, the Pact countries are seriously evaluating all proferred technologies, and insisting on extensive transfers of technologies they want.)

The extent of the multinational's liquid assets, in the area of several hundred billion dollars, is considered a source of great danger to the stability of the current monetary system.[36] The ease with which any of the large companies could affect the exchange rates is often cited as one of the more pressing international problems in this area.

The international trade situation is another arena now practically controlled by the multinational corporation. Where countries once were able to regulate the terms and extent of their economic relations with other sovereign states, this is no longer so possible. The multinational corporation, by virtue of its vast organization and its resources, is able to take into account the taxes, tariffs, and other restrictions of governments, and act thereby to minimize their influence on daily operations.

The market in each country is often ignored by the MNC in that through transfer pricing an arbitrary cost can be applied to each component. Further, once a substantial investment is made in a particular locale, the likelihood of the MNC's responding to changes in the local market situation is minimal.[37] This is reflective of the oligopolistic character of the multinational corporations, which is also a factor of some weight during the initial negotiations with the host governments.

Although many of the lesser developed countries are resisting the trend (notably in Latin America, where the military policy makers are reluctant to become dependent on another nation for trucks or other vital products), the multinational corporation has definitely accelerated the integration of national markets. The ability of the MNC to locate resources in one area and use them profitably in another has increased the linkages between the various nations. Although this is most noticeable in the developed countries, which we have already noted have the infrastructure and the receptive mind-set, it has spread to the LDCs in the form of informal or formal regional trade agreements (IBM in Latin America and Ford in Southeast Asia are noticeable examples).[38] We must note that although the interdependence is increasing, this is not necessarily regarded favorably by participating governments, and may in fact cause many conflicts, as the factor price variations are exploited from left to right.

The Moot Mechanisms of Technology Transfer

The field of technology transfer research is rapidly becoming recognized as one of major importance, as the lesser developed countries realize the excessive costs they are paying by acquiescence in the activities of the multinational corporations. Sadly, most of the material by the chief investigating agency, the United Nations, concerns itself with the direct and immediate costs in terms of restrictions <u>on</u> growth, and only hints at the greater issue of deliberate limitation of growth through the restriction of "inappropriate" technologies. Unfortunately, "inappropriate" technologies are those which to not produce growth as quickly as the more obsolete technologies which the multinationals tend to transfer to the lesser developed countries at inflated prices. Most of the material in this section comes directly from one of two major U.N. documents; a report by the UNCTAD secretariat, "Major Issues Arising from the Transfer of Technology to Developing Countries," (18 December 1972); and a study by Charles Cooper prepared for the UNCTAD secretariat with the collaboration of Francisco Sercovitch, "The Channels and Mechanisms for the Transfer of Technology from Developed to Developing Countries," (27 April 1971). A number of peripheral materials are listed in the last bibliography.

"The transfer of technology from advanced to developing countries may be taken to cover the transfer of those elements of technical knowledge which are normally required in setting up and in operating new production facilities or in extending existing ones - and which are characteristically in very short supply (and often totally absent) in the developing countries."[39] Cooper's enumeration of the elements of knowledge involved in industrial transfers is reproduced below:

> Elements of technical knowledge needed in the pre-investment and construction stage:
>
> A. for feasibility studies and market surveys prior to investment;
>
> B. for determining the range of technologies which may be available to manufacture the product in question, and for choosing the most appropriate technique;
>
> C. for engineering design of new production facilities, involving both plant design and selection of machinery;
>
> D. for plant construction and installation of equipment;
>
> E. for the process technology proper.
>
> Elements of technical knowledge needed in the operation stage:
>
> F. for management and operation of production facilities;
>
> G. for marketing;
>
> H. for improving the efficiency of established processes by minor innovations.[40]

The distinction between process and element technology will prove to be an important one. As distinguished from the tangible mechanical apparatus, process technology "refers to technical knowledge actually 'embodied' in the production process."[41]

> For example, the chemical and engineering knowledge [and experience] required to 'invent' a petroleum cracking plant is process technology; so is the engineering knowledge used in making a piece of textile machinery, or even the unsystematised mechanical knowledge required to build a hand-loom in an artisanal work-shop. There are many sources of process technology. A production process may be the outcome of many years of research and development work, or it may result from the mechanical ingenuity of an individual craftsman. New process technologies may evolve from old through successive modifications.[42]

While approximately half of this process technology is unpatented, it remains secret, restricted to the parent company, its subsidiaries, and privileged licencees. Another portion of the process technology is patented and so legally restricted. The remainder, presuming it has been known long enough to become public, is probably not as marketable as the former, which Cooper calls proprietary process technology. This technology is vital; without these management and other skills as adapted to the particular element technology, the transfer is likely to be commercially unsuccessful.[43]

Proprietary process technology can be further sub-divided into three categories, as suggested by Quinn, Hall, and Knight, cited by Cooper:

> 'General technology' is the kind of technical knowledge which is common to most firms in any industry [such as basic accounting skills]. 'System-specific technology' is knowledge possessed by a firm or individuals in it that differentiates the firm from its rivals and may give it a competitive edge. (Quinn - more specifically - identified 'system-specific technology' with the kind of technical knowledge which is likely to be protected by patents or other property rights). 'Firm-specific technology' is the kind of technical knowledge which cannot be attributed or associated with any specific item the firm manufactures, but which results from its over-all activity and experience.[44]

The distinction between the elements of technical knowledge and the "capacity to use [that] knowledge for commercial advantage" will prove significant when the developing countries are shown to be at a disadvantage in assimilating the latter, thus forcing them toward greater dependence on the more expensive indirect transfer mechanisms by which a multinational corporation interposes itself between the lesser developed country and the many direct sources of technology. This incapacity adds to the problems faced by the LDCs, which begin with a general inadequacy of their entire economic infrastructure.

Indirect transfer mechanisms include:

A. Wholly-owned, majority-owned, and minority-owned subsidiaries of multinational corporations.

B. License agreements for entire processes or portions.

C. Turn-key arrangements.

D. Management contracts.

E. Engineering/Construction agreements.

F. Technical Service (Maintenance) agreements.

Factors affecting the nature of indirect transfer arrangements include "things like the nature and complexity of the process technology, the rate of technological advance, the number of alternative suppliers of technology, and institutional factors like government policies on foreign private investment, foreign technical collaboration and foreign trade. Other factors are specific to the firms: the sophistication and 'uniqueness' of the corporate skills in the intermediary company, the availability or lack of such skills in the recipient company."[45]

The three main reasons for LDC dependence on intermediary companies in the transfer process are:

(i) deficiencies in the capacity to use technical knowledge in developing countries;

(ii) the role of proprietary process technology in the transfer process;

(iii) the role of trade-marks, brand names and the like in the transfer process.[46]

Unless the recipient firm possesses the managerial and entrepreneural skills with which to organize its sources of material and knowledge to produce competitively, it will fail. If it does not have them, it must be willing to give up a large part of the control of its operations to an intermediary. The same incapacity with regard to proprietary processes will produce the same failure.

Because much of the industrial development of the lesser developed countries is aimed at import substitution, the market for the proposed products is often already conditioned, showing an "irrational" preference for foreign goods.[47] "The importance which recipient enterprises place on the use of [well-known] brand-names and trade-marks leads them into indirect transfer agreements even when the technologies required to make the product are simple, well-established and available through direct transfer mechanisms.[48]

The techniques of control as acquired by the multinational corporation serving as intermediary vary. Obviously the wholly-owned and majority-owned subsidiary operations will allow for the greatest degree of control, in that personnel, purchasing, marketing, and important policy on such things as transfer pricing and profit repatriation will all be subject to the direct influence of the parent company, with little host interference or restriction. For joint ventures and minority-owned enterprises the multinational corporation may find itself with a little less control, but the loss is likely to be insignificant if the corporation is able to insist on a management contract as part of the bargain. In many cases it may be more desirable for the corporation to surrender the excessive profits it is accustomed to in return for assured control of sources of supply and demand which are tied into its international network.

In licensing a company in the host country, the licensor may insist on participation in daily operation, may oblige the recipient to adhere to parent price and marketing policies; may appoint certain key directors in the recipient companies, may employ a supervisory department autonomous from the remainder of the host company, or it may provide its own marketing manager.[49] These operational controls protect the interests of the multinational corporation, which may also write specific policies or restrictions into the contracts, as enumerated in the section on the indirect costs of technology transfer, below.

The direct mechanism for the transfer of technology involves individual contracts by the recipient company with the required number of supplying enterprises. Examples would include the direct purchase of equipment, the employment of individual experts, the contracting of consultants, and collaboration with a research institution.[50]

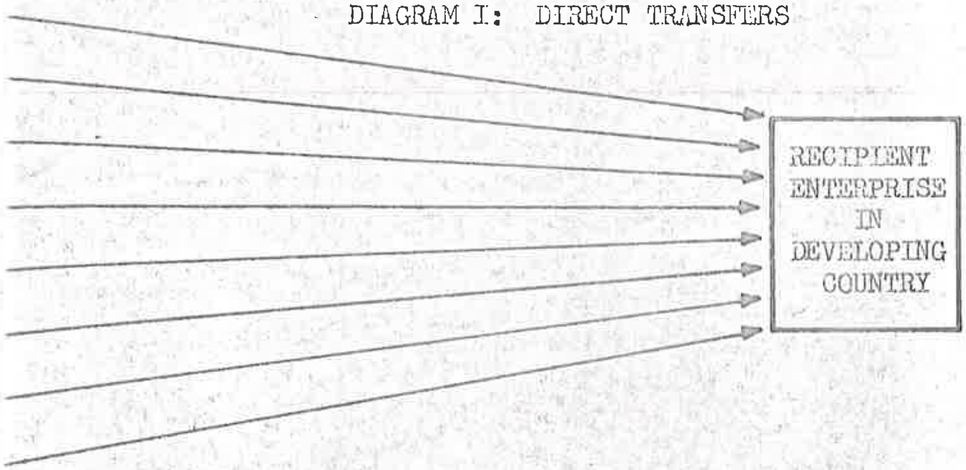
The ability of the recipient company to make direct purchases will depend of its possession of the requisite manegerial capacities, on the availability of appropriate unpatented technologies, and on bearable credit conditions; presumably the required supporting infrastructure would be present in the host country.

Individual experts and consultant enterprises are one of the major sources of "independent" supplies of technology. A major complaint among the lesser developed countries, however, concerns the avowed ties between consultants and particular suppliers of plant, machinery, or process technology. This does not necessarily imply bad faith, as Cooper points out the natural familiarity that consultants will tend to have with suppliers in the same home country, or similar experience patterns.[51]

Access to research institutions on the part of the lesser developed countries is limited since most of the research and development is carried out in the developed countries. The multinational corporations, in fact, often restrict the amount of research and innovation that may be carried out by the recipient company, and thus tend to stifle the development of an autonomous local scientific apparat.

MECHANISMS OF TECHNOLOGY TRANSFER

DIAGRAM I: DIRECT TRANSFERS



1) DIRECT PURCHASE
2) IND. EXPERTS
3) CONSULTATIVE ENT.
4) RESEARCH INSTI.

DIAGRAM II: INDIRECT TRANSFER

1) WHOLLY OWNED SUBSIDIARY
2) JOINT VENTURE
3) MGMT CONTROL
4) TURN-KEY OPERATION
5) GEN. LICENSE AGREEMENT

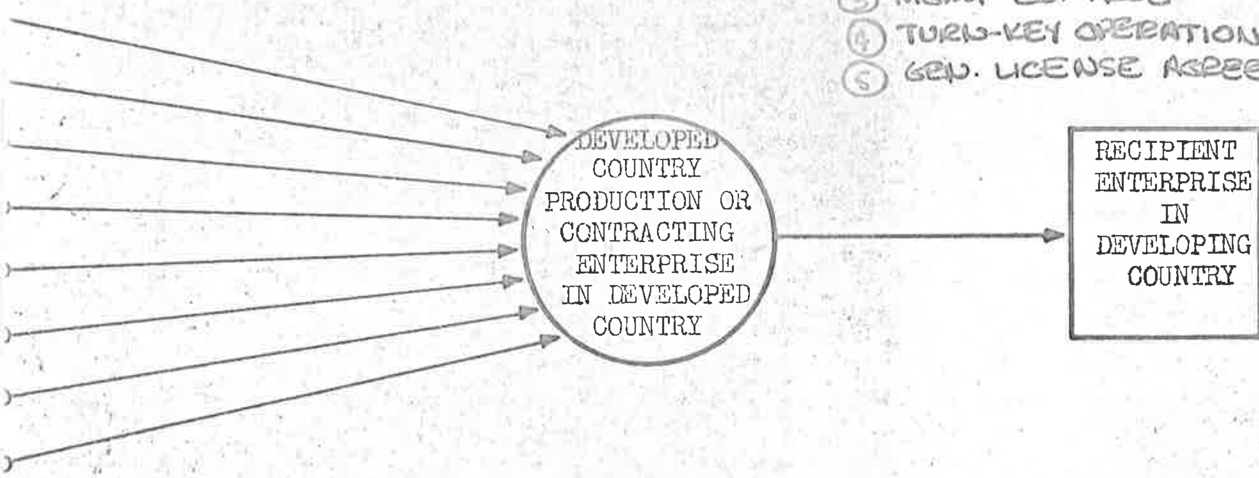
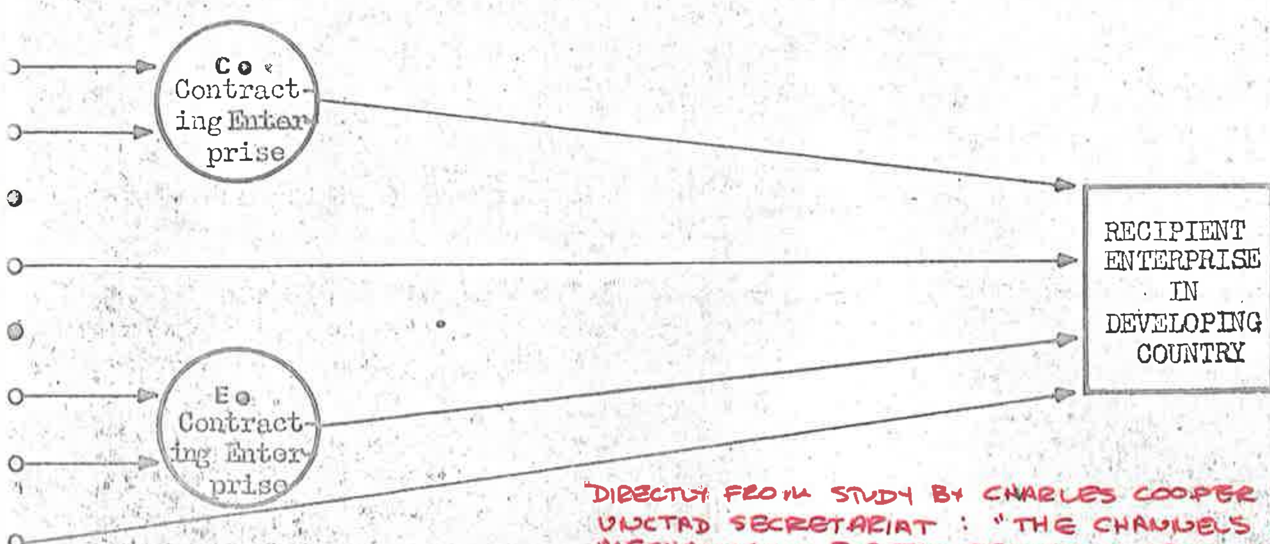


DIAGRAM III: HYPOTHETICAL EXAMPLE



DIRECTLY FROM STUDY BY CHARLES COOPER FOR UNCTAD SECRETARIAT : "THE CHANNELS AND MECHANISMS FOR THE TRANSFER OF TECHNOLOGY FROM DEVELOPED TO DEVELOPING COUNTRIES" 27 APRIL 1971 TD/B/AC.11/5

Transferred technology will cause some immediate problems for the recipient; "instead of stimulating local skills, indirect transfers may tend to perpetuate technological dependence. Whilst transferred technology adds to the productive power of the developing economies, it has not always allowed them to diversify their export patterns. Transfer often results in high cost production which is internationally uncompetitive. And, the foreign exchange burdens which will result from technology transfers are often higher than might be suspected."[52]

The foreign costs of transferred technology can be seen in the suppliers' returns through:

(i) profits on equity investment (the equity may, of course, represent 'capitalized know-how');

(ii) sales of components and intermediate materials to the recipient [presumably at inflated transfer prices[53]]

(iii) royalty payments from the recipient [set arbitrarily high or low in the case of majority or wholly-owned subsidiaries]

(iv) technical licensing fees [or management and consultation fees, again set arbitrarily high or low in the case of majority or wholly-owned subsidiaries][54]

and

(5) indirect profits arising from limited competition restricted by clauses in contracts.

Perhaps the most repressive costs of technology transfer are these last indirect ones; there are generally five areas in which the multinational corporations seek to restrict the activities of the recipient company:

(1) through tied purchases of inputs
(2) through restrictions on exports
(3) through the requirement of certain guarantees
(4) through restrictions on competition in the domestic market
(5) through constraints limiting the dynamic effects of the transfer.[55]

Table III-2

Direct costs of transfer of technology in comparison with other relevant foreign exchange flows of developing countries, 1968a/

Flows	Value	Proportion of direct payments for transfer of technology
	(Millions of dollars)	(Per cent)
Outflows		
1. Direct payments for transfer of technology (patents, licenses, know-how, trademarks and management and other technical services)	1,500	100
2. Technology-related payments:		
a. Imports (cif) of machinery and equipment (excluding passenger vehicles) and of chemicals	18,420	8
b. Profit on direct foreign investment (excluding oil-producing countries)b/	1,721	87
3. Service payments on external public debt	4,022	37
Inflows		
4. Non-petroleum exports (fob)	29,350	5
5. Total official flows	6,710	22
6. Direct foreign investment (including reinvested earnings)	2,700	56

Sources:

Line 1 : UNCTAD secretariat estimates (see text)
Line 2a): United Nations, Monthly Bulletin of Statistics, July 1972
Line 2b): "The Outflow of financial resources from developing countries . Note by the UNCTAD secretariat" (TD/118/Supp.5).
Line 3 : World Bank/IDA Annual Report 1972.
Lines 4,5 and 6: UNCTAD, Handbook of International Trade and Development Statistics 1972 (United Nations publication, Sales No.: E/F.72.II.D.3)

a/ Data do not include Southern European countries.
b/ Including oil-producing countries: $4,934 million.

CITED IN: REPORT BY UNCTAD SECRETARIAT, "MAJOR ISSUES ARISING FROM THE TRANSFER OF TECHNOLOGY TO DEVELOPING COUNTRIES", 18 DECEMBER 1972 TD/B/AC.11/10

Table IV-1

Pattern of limitations on access to technology by developing countries

Type of limitation	Replies as to whether the country faced the specified limitation: Yes	No
1. Tied purchases of imported inputs, equipment and spare parts	Argentina, Chile, Cyprus, Ecuador, Greece, Iran, Malta, Mexico, Nigeria, Pakistan, Peru, Sri Lanka, Turkey	Rep. of Korea
2. Restriction of exports (total prohibition, partial limitation, geographical constraint)	Argentina, Chile, Cyprus, Ecuador, Greece, Iran, Malta, Mexico, Nigeria, Pakistan, Peru, Sri Lanka, Turkey	Singapore
3. Requirement of guarantees against changes in taxes, tariffs and exchange rates affecting profits, royalties and remittances	Cyprus, Nigeria, Turkey	Greece, Iran, Malta, Mexico, Singapore
4. Limitation of competing supplies by:		
(i) restriction of competing imports	Cyprus, Greece, Mexico, Nigeria, Peru	Iran, Rep. of Korea, Malta, Pakistan, Singapore, Turkey
(ii) preventing competition for local resources	Greece, Malta, Mexico	Iran, Rep. of Korea, Nigeria, Pakistan, Singapore
(iii) obtaining local patents to eliminate competitors	Ecuador, Malta, Nigeria	Greece, Iran, Singapore
5. Constraints limiting the dynamic effects of the transfer:		
(i) excessive use of expatriate personnel	Argentina, Malta, Mexico, Nigeria, Peru, Turkey	Singapore
(ii) discouragement of the development of local technical and R & D capabilities	Argentina, Ecuador, Greece, Malta, Mexico, Nigeria, Turkey	

DIRECTLY FROM REPORT BY UNCTAD SECRETARIAT "MAJOR ISSUES ARISING FROM THE TRANSFER OF TECHNOLOGY TO DEVELOPING COUNTRIES" 18 DECEMBER 1972 TD/B/AC.11/10 p. 25

There are three main reasons why tied-purchase clauses are attractive to the suppliers:

> First, where the plant in the developing country carries out mainly assembly operations, the foreign enterprise may wish to preserve an exclusive right to supply the necessary processed and semi-processed inputs [thereby providing security for its international apparatus]. Second, the tied-purchase clauses may be connected with the need for guaranteeing the quality of the product through the utilization of specific inputs, particularly in cases where foreign brand names and trade marks are involved. Third, the foreign enterprise may also use such provisions as a means of enlarging its profit margin [through inflated transfer prices].[56]

Such arrangements put the lesser developed countries at an obvious disadvantage. One case study of Colombia[57] concluded that the weighted average of overpricing of inputs by foreign-owned subsidiaries was 155 per cent, as opposed to only 19 per cent for nationally-owned enterprises. The average for enterprises operating under lease arrangements would probably fall closer to the higher figure.

Not only does overpricing provide an ideal method of generating excess profits, it is easily available to the multinational corporations as a means of avoiding host limitations of corporate profit repatriations, since transfer prices are not subject to market conditions and may thus be set arbitrarily, safe from examination by government agents.

Export restrictions fall into three general categories:[58]

(i) total prohibition of exports or requirement of prior approval;

(ii) exports permitted to certain countries and prohibited to others;

(iii) other forms of restriction, such as the specification of partiuclar products which may be exported or of prices and quantities allowed, the designation of firms that are allowed to handle the export trade, and the prohibition of exports of substitute products.

Multinational corporations may require guarantees from the recipient company or its government concerning profits, royalties, tax rates, tariffs, and the rate of exchange.[59] In many cases, where the parent company can not obtain a satisfactory guarantee from the host government, it will insist on protective clauses in the contract providing for compensation of its losses by the recipient firm.[60]

Less common have been clauses attempting to restrict competition on the domestic market, either by restricting the recipient to certain carefully defined activities, or by obtaining from the government monopoly rights over various input factors (particularly raw materials), or by pre-empting competition through the purchase and "icing" of patents for related products.[61]

Certain provisions can serve as constraints on the growth potential of the host economies; provisions requiring the excessive use of expatriate personnel, the extension of the contract for a prolonged period (during which the technology is likely to become relatively obsolete), the sharing of any local innovations derived from the original transfer, and restrictions of the local sharing of transferred technology all combine to hinder the development of the local entrepreneural class and of local research and development capabilities.[62]

In examining the problem of technology transfer by the multinational corporations from the point of view of the governments, the UNCTAD secretariat enumerates five foreign investment policy elements:[63]

(a) Registration and approval [of proposed contracts]
(b) [Legislation relating to] Ownership
(c) Repatriation of profits and other remittances of foreign exchange
(d) Fiscal and tariff treatment
(e) Special guarantees

The registration and approval of contracts involving multinational corporations allow for the greatest host government impact on the transfer process -- but governments must have a viable organization and defined policies concerning the "ideal" technology transfer process if they are to take advantage of this opportunity. Prior examination by a competent national agency will allow the government to make certain that conditions of the contract do not exceed "normal" costs (assuming these can be determined). Certainly the government can make certain that technology already within the country is not being purchased at excessive costs, or that obsolete technology is being sold to an unknowing buyer. By providing a competent authority capable of outlining contract inequities, the government is in a position to renegotiate the contract, saving the individual companies money, as well as protecting the position of the government internationally by guarding its balance of payments and enforcing its national development plan.

A good example of the success which such an agency can enjoy is provided by the record of Colombia's Comité de Regalías (Royalty Committee) during the latter part of 1970 and the beginning of 1971. The Committee succeeded in:[64]

(i) Reducing by 90 per cent the number of tied-purchase clauses with respect to intermediate inputs;
(ii) eliminating all clauses restricting exports;
(iii) eliminating 80 per cent of the clauses on minimum royalty payments;
(iv) prohibiting payment of taxes by the licensee on royalties remitted to the licensor; and
(v) establishing maximum rates of royalty payments by sectors.

The question of ownership may be decided by legislation requiring (or not, as the case may be) the participation of nationals to any predetermined degree..

Governments may choose to limit the amount of the original capital invested which may be repatriated, although most allow all of it to be withdrawn, some requiring a minimum time period. Most countries set some limit on the amount of profit which may be repatriated, preferring to induce the re-investment of excess profits. This restriction on the part of the government is unfortunately irrelevant in many cases, given the ease with which funds can be shifted through internal changes by the company of its transfer prices and royalty or service fees.[65] Eventually the governments might hope to control these as well.

Fiscal and tariff treatment might involve favorable tax treatment, subsidies for employee training, duty-free entry of machinery and equipment, reductions of the existing import duties, and protective action such as the raising of tariffs for competing products.[66]

The most important special guarantee which a government is often asked to give is one against expropriation, or, at the very least, that nationalization will be accompanied by "just" compensation.[67]

Obviously, if the governments are to achieve any significant impact upon the multinational organizations operating within their sphere of influence, a national agency must be formed to provide coherence on a comprehensive scale for the policies outlined above. Only a few of the lesser developed countries have developed offices of technology assessment, or agencies responsible for doing <u>more</u> than merely registering and rubber-stamping contracts involving foreign institutions. Colombia, Argentina, and Mexico serve as examples of development.

Beyond a simple regulation of the terms of the contract, it is important that the agencies have a definite set of criteria for the evaluation of proposed technology transfers. Six general items have been suggested by a reading of the relevant U.N. documents:

(1) The impact of the transfer on the balance of payments. (This reflects the simple cost analysis engaged in now).

(2) The technical contribution to the society. (This can either reflect short-term considerations of cost vs. alternatives, and appropriateness of technologies to particular situations (the goals being axiomatic), or it can engage in long-term analysis of both the goals and the technologies to be acquired or avoided if those goals are to be met).

(3) The impact of the investment on other aspects of the national plan, such as the employment situation.

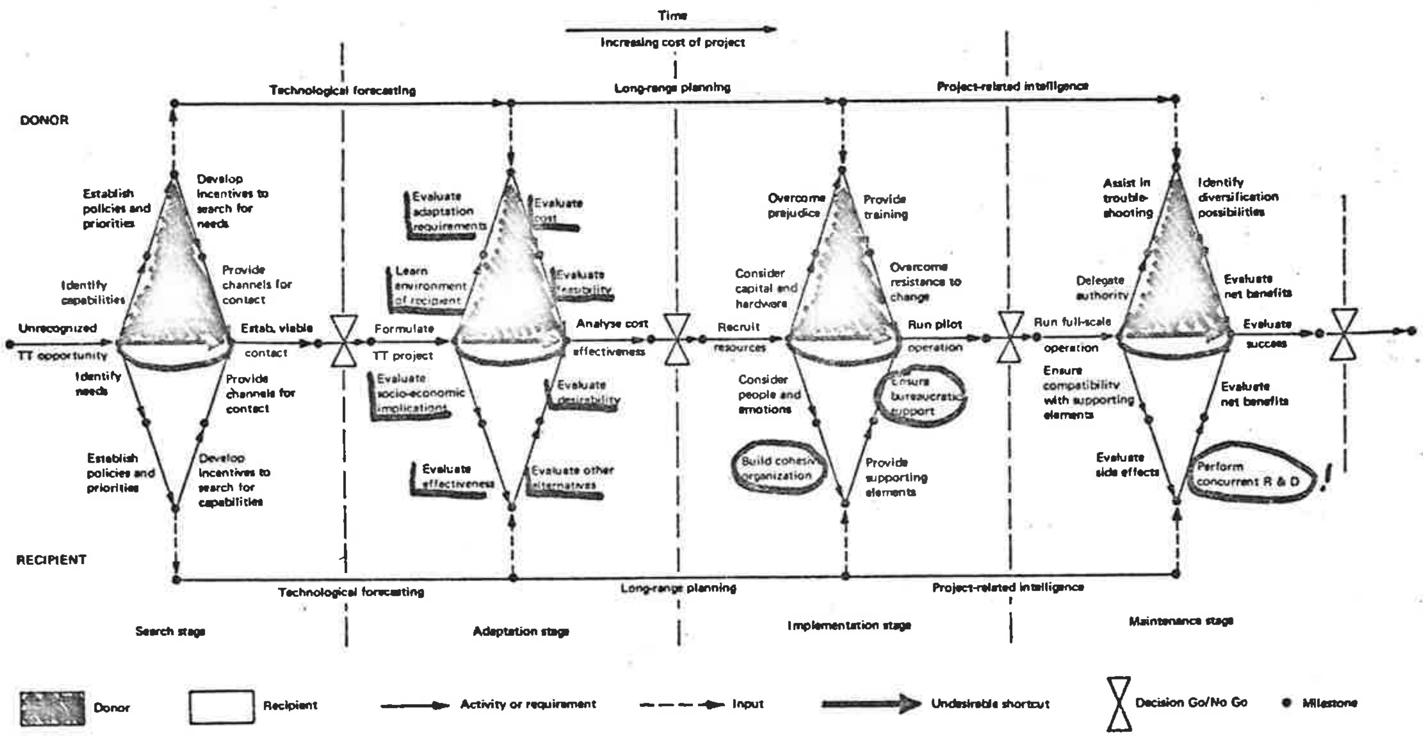
(4) The extent of local research and development utilized or fostered.

(5) The impact of the investment on local competition and the development of the local entrepreneural class.

(6) The extent to which sources of supply are diversified, providing more direct trasfers, saving the hidden costs of indirect transfers.

The complexity of the transfer process is clearly a major handicap in the attempts of host governments to deal with the situation. On the other hand, multinational corporations must be seen as having reciprocal responsibilities of their own -- even if we only ascribe to them the desire to be consistently successful and profitable.

A graphical presentation of the extended nature of the transfer process, and the many steps that must be taken on the part of each actor through each of the four stages, search, adaptation, implementation, and maintenance, is offered on the next page, extracted from work by Samuel N. Bar-Zakay of Tel-Aviv University.



TECHNOLOGY TRANSFER MODEL

DIRECTLY FROM SAMUEL N. BAR-ZAKEY, "TECHNOLOGY TRANSFER MODEL," *INDUSTRIAL RESEARCH AND DEVELOPMENT NEWS*, VOL. 6. NO. 3 (1972), p. 3.

The More General Alternatives For Action
Regarding the Multinational Corporation.

We have covered briefly the most visible sources of contention between home and host countries and the global multinational corporations. Obviously the potential for future conflict is equal or greater to that we have discussed, if all parties choose to remain as egocentric as they now are. Unfortunately, alternatives for the future include not only the ameliorating compromises called for by numerous students of the situation, but also the possibility of any of the actors' reinforcing their own position. What few comments we care to venture on the likelihood of any of these options will be reserved for the conclusion. For now, simply note that any and all of these options are quite possible.

Domestic Home Action. Galbraith has suggested the symbiotic relationship existing between the executive bureacracy and the industrial giants, not the least of them being our multinational corporations. Ray, as we noted earlier, has examined the elites' membership, and found empirical support for this suggestion, the implication being that nothing the executive is likely to do will severly hamper the operations of the MNCs. On the home front then, Galbraith has called for specific reforms of the government intended to re-assert the intent of the Constitution, and bring the branches of government back into balance. In terms of the American Congress, Galbraith has suggested that we 1) eliminate the seniority system, 2) expand the technical and administrative staff of Congress so that it is not the institutional and technical inferior to the administration it now is, 3) pre-dispose the electorate against the incumbents, relying on the staff for continuity and the rotation of members for equal representation, 4) establish Federal funding for election campaigns, reducing the dependency of candidates on corporate support, and 5) establish a general budget committee charged with establishing national priorities in the over-all budget, leaving it to the existing "tactical" committees to review specific requests, which may or may not be granted, but which <u>must</u> adhere to the budget limit set by the general committee.[68] The outcome of these reforms is dubious in my own mind, but it may be that they will institutionalize, on today's grand scale, what little democracy we have left, and counter-pose it to the autonomous administrative state Ellul condemns.

INCL: BEHRMAN: INAPPROPRIATE & INEFFICIENT DIVISION OF U.S. AGENCIES DEALING WITH MNC, TO CONTRARY ENDS: JUSTICE, IRS, COMMERCE, DEFENSE, STATE, TREASURY, ET AL.

On another level, Karl Kaiser notes that the autonomy of the political bureaucracy has allowed the development of multi-bureaucratic decision-making, not only in traditional foreign policy areas, but with regard to formerly domestic issues. Witness for instance the implications of the Department of Agriculture making wheat deals with Russia. Given the lack of Congressional control over the bureaucracy, we see that there is a loss of control both within and without the country in terms of "the people," whoever they may be.[69]

Be that as it may, the nebulous institution of "government" is in a position to help or hinder the operations of the multinational corporation. Regulatory agency action could include the obligation of the MNC (as well as other American industrialists) to pay external costs of producing their product, the rigourous application of the anti-trust laws in the United States (ITT could be forced to give up its insurance company, Hartford of Connecticutt, a major source of revenue, its Sheraton hotels, and a multitude of other little companies which make it something of a nation-state in itself[10]), the arrest of the tax allowances now allowed, where large American corporations (and individuals, for that matter) may deduct foreign taxes paid from their American assessment, the raising of tariffs against products which could be produced within the United States, and the support of labor grievances against the MNCs when they move to foreign low-wage areas.

On the other hand, government agencies may find themselves aiding the multinationals, if, for instance, the European or Japanese MNCs suddenly become a very real threat. Pollution laws could be eased, or payment of external costs could be subsidized. We've seen this, in reaction to another threat, recently. Mergers could be encouraged, tax write-offs could be increased, and some sort of free-trade preference could be extended toward MNC goods produced outside the United States.

International Home Action. In the international arena, the home countries could either begin to harmonize their policies with the other members of their groups and with host countries, or they could lend active support to the efforts of the MNCs. One example of harmonization is found in the area of taxation. One means of equitably taxing the MNC would follow the example set by the individual states within the United States. Through the exchange of records a total assessable base is agreed on, and the tax calculated for all industrial activities shared by the states concerned. Then the proportion of each industry's operations in each state is calculated, and the tax share awarded accordingly.[11] This would obviously require either close co-operation among the many nations encompassed by the operations of a typical MNC, or an international taxgraph: "The examination that has been made of contracts or agreements through which domestic industry acquires technology has led to the conclusion that those contracts and agreements have been the channel for the transmission of technology useful to and important for the country's industrial development, but at the same time that the technology acquired is often obsolete, inadequate, or already available in the country, and moreover that such contracts contain clauses through which the technology supplier unduly increases the technology buyer's production costs; obliges him to acquire obsolete or costly goods at excessive prices; prohibits or limits his exports; curtails his scope for expansion or for developing technology of his own, intervenes in his management or in his production, distribution or marketing processes; and requires disputes about the interpretation or performance of contracts to be brought before foreign foreign courts or tribunals."[78] The bill will provide for an office of technology assessment, which, by law, will review every contract dealing with the transfer of technology from a foreign corporation or individual, and may refuse to register any contracts found in violation of the provisions, which expand on the paragraph above.

Submissive Host Action. A few lesser developed countries are not in a position to make excessive demands of the multinational corporations, for lack of resources or infrastructure or location. These will continue to be submissive, hoping to lure the multinationals in with tax holidays, special import and export licenses, legalized monopolies, and perhaps even guarantees of future government inaction in the field of pollution control -- so we can look for the development of "pollution havens" in the very areas of the world which have nothing else going for them.

<u>International Labor Action</u>. Because multinational corporations are characterized by central decision-making regarding wages, plant locations, the use of additional machinery, and so on, they are not amenable to intervention by local unions on behalf of their local workers. The ease with which the multinational can substitute one plant's production for another in times of grievance weakens the position of national labor unions. David Blake has written on the problem, and outlines possible union strategies. By collecting and sharing information about collective bargaining procedures, the contents of contracts, the nature of fringe benefits, the termination dates of contracts (crucial for co-ordinating pressure), and production and profit figures, each local union is in a much better position to to bargain for appropriate benefits. By co-ordinating on objectives, policies, and tactics, the unions can deprive the multinational corporation of the opportunity to use the production of one union to break strikes by another. Most optimistically, Blake looks for the day when unions will combine in calling for or even implementing regional or international controls on the multinational corporations;[79] for instance, the establishment of a global fair wage, which I personally think is a ridiculous proposition. A more realistic effort would determine the wage as a proportion of the price of some consummer basket index. Never-the-less, unions have the potential to act as a major global force in the coming years -- they may be the only organizations with sufficiently similar motivations and interests to successfully promote transnational restriction of the multinational corporations.

IGO and RGO Action. Although the labor organizations have the interest and motivation, the resources and legitimacy for any future action lie with the international and regional governmental organizations. Even so, the problems are great. Fundamentally, the regional and international organizations of any consequence are dominated by the Northern Atlantic states and their consorts. The chances of their allowing these organizations to come to the assistance of lesser developed countries in any significantly long-range way are slim.[80] In the case of non-governmental organizations, the same predominance of the developed nations is witnessed; we find that action by these organizations tends to reinforce the division between MDCs and LDCs.[81] The lesser developed countries themselves are reticent about allowing the intervention of international organizations, since they correctly identify them as being under the predominant influence of the developed powers.[82] The three authors from whom I drew the above conclusions, Alger, Walters, and Skjelsbaek, seem to agree that the likelihood of concerted and remedial international or regional action on this level is slim. They look instead to more informal and multilateral or bilateral manouvers for a solution. Never-the-less, the options in this area are many.

A number of suggestions have been made, most of them looking to the United Nations for the organizational factor. We should bear in mind that such suggestions may be just as easily applied to the regional level, although finding a suitable organizational format will be a much greater obstacle there.

International forum. The most general call is one for an international forum, where the whole problem can be discussed, leaving individual members with some common thoughts on which they might act unilaterally. To a certain extent, the U.N. report on Multinational Corporations in World Development which we've used extensively is the result of conferences convened by the Economic and Social Affairs Council. These will continue on a regular basis during the immediate future.

International information center. A corollary of the above recommendation is one asking for an international information center responsible for accumulating and disseminating all available information on the operations of multinational corporations. This would greatly assist other transnational actors in their bargaining efforts. Again, the U.N. has moved in this direction. The Economic and Social Affairs Council is continuing to meet on the problem and continues to publish its conclusions and background material. More significantly, UNITAR (United Nations Institute for Training and Research) and UNCTAD (United Nations Conference on Trade and Development) have been examining problems of diverse natures, some of which are directly relevant to the impact of the multinational corporation on the economy and development of the developing nations. Their work on the transfer of technology is a case in point.

these two should include between them a "Patent Bank" of some sort.

International agency for technical co-operation. One of the characteristics of the multinational corporations is their ability to amass the technical expertise required for their global operations. As a consequence, the officials of local unions, companies, and government agencies are usually unable to match them lawyer for lawyer, engineer for engineer, and tend to pay the price. An international agency might not only expand on the informative capacity of the center mentioned above, but might provide consulting teams, or even negotiating teams which could take active roles in determining the nature of multinational involvement in all parts of the globe, with special reference to the lesser developed area.[83]

International financing agency. Among other, Gabriel, Scheman, and Hirschman have shown how useful an international financial agency could be in easing the tensions caused by multinational operations. The agency could assist governments by loaning them funds to facilitate their participation in joint or minority ventures, and could lend them the monies they might need to buy out MNCs required to or interested in divestment.

International insurance agency. Possibly in association with the financial agency, an international insurance agency could protect the investments of multinational corporations in high-risk areas subject to political instability, and guard against arbitrary nationalization. The association with the financial agency could be used to provide some form of sanction, by refusing loans to governments refusing to compensate nationalized industries.[84]

International arbitration council. There is AT PRESENT ~~presently~~ no international legal code of competition, although the EEC is moving in that direction, and a few regional groups appear to be establishing general guidelines. It seems unlikely that multinationals will appear in any international court of justice for some time to come. As a more feasible substitute, it has been suggested that an international arbitration coun- be convened, to remain available for use during conflicts between two sovereign states, two multinational corporations, or a combination of the two.[85] It seems to me that only some combination of the above three agencies will have a chance of success, since it is unlikely that any actor will choose to participate unless he has something to gain by participating and something to lose by not.

International assistance agency. One of the major sources of tension between home and host countries lies in the potential of the home countries' aid, which could be cut off in retaliation for unilateral host action versus multinational corporations. As one means of alleviating this situation, and reducing the opportunities for home intervention on behalf of the MNC, Vernon, among others, has suggested that all assistance be administered on a multilateral basis. This would not only serve the first end, but would transfer to the international agency, possibly associated with the other agencies, resources which could be used to re-interactions between multinational corporations and sovereign governments.

Each of the above options is flexible; each program could be autonomous from the others, and each program could be organized on an international, regional, or multilateral level. Two other programs lie in the international dimension, although they too could be adapted to a regional level.

International regulatory agency. The United Nations is in an ideal position to instigate and institutionalize agreements among the nations on wage rates, repatriation policies, extra-territorial jurisdictions, and tax appropriations, to name only a few of the more prominent issues. A General Agreement on Multinational Corporations, similar in format to the General Agreement on Trade and Tariffs, could conceivably be arrived at. It could then be enforced by an international regulatory agency under the auspices of the United Nations.[86]

<u>International chartering agency</u>. Should an agreement be reached on the regulation of multinational activities, an international chartering agency might be formed. This would further reduce the intervention of the home countries by removing truly multinational corporations from their jurisdiction; it would be the basis for enforcing international legal standards, since the multinationals would unquestionably be within its jurisdiction, and it would allow the agency to extract revenues from the multinational corporations for the support of the other services mentioned above.[87]

<u>Multinational Corporate Action</u>. The multinational corporation must plot its course carefully over the next few years, as demands from the sovereign states increase. The MNC can either attempt to expand mightily, and subvert all interfering states, as ITT tried to do in Chile, and as others are doing more subtly elsewhere; or it might submit to the rising pressures, and allow itself to be nationalized at will, and fall into the role of a service company fulfilling special contracts on a day-to-day basis. Between the two courses lies one of moderation and flexibility. The multinational corporation could try to adapt itself to the particular conditions met in each host country, accepting new responsibilities and paying a higher price for the privilege of retaining control of its empire.

If it is to expand, the MNC may do so either by retaining its home office in the United States or one of great powers, and obtaining strong control of its subsidiaries, or by attempting to achieve true multinational standing, diversifying its operations under the control of an international management cadre based in various international centers.

In the first case, the MNC is likely to fail, in that its ethnocentric corporate philosophy[88] it likely to make it inflexible and thus more of an irritant to its host countries. In the second case, the MNC may well succeed, if it can so diversify itself as to be able to survive expropriation or anti-trust action in any single nation. In either case, the MNC should certainly do all it can to limit its vulnerability, by making the costs to the host country considering expropriation as high as possible. An ideal example of possible protective measures is offered by a study of Kennicott in Chile, which managed to protect and even increase the value of its investment, where Anaconda lost its shirt. Kennicott, by selling 51% equity interest to Chile, using those funds to expand, borrowing from international banks, selling output in advance to international banks, insuring the sale with AID against expropriation, forcing Chile (not a lesser company or agency) to unconditionally guarantee the sale and loan in a foreign court, managed to keep the company's capital out, while increasing the assessable value of the Chilian operations, and lining up, in advance, international outrage against expropriation and in support of compensation; the cost of nationalization to Chile was increased, and the benefits to Kenicott secured. An incredibly brilliant series of moves, these were not duplicated by Anaconda, its Board having no recourse to dismissing the top executives,[89] accepting the loss.

The multinational corporation may continue to retain its primarily economic nature, relying on its control of tangible assets to assure its welcome in the various host countries. More subtly, and less likely, it may try to achieve a cultural and ideological importance of its own. The role of the Japanese corporation as the ideological parent of its workers, who are employed and cared for for life, comes to mind as an example. This potential of the corporations' will concern us during the conclusion.

If the multinational corporation chooses to be flexible, as it is eminently capable of being, it will accept the external costs and technological assessments imposed by the host countries, and will give up in profits what it will retain in terms of control. It will accept the need for negotiating differing structural arrangements with its subsidiaries, and it will accept the Calvo Clause, in which it waives the right of calling for home country interference in its affairs. It will develop close local ties with its suppliers and customers, will train all of its workers, and support the planning efforts of local officials. While maintaining a low profile, it will carefully publicize its efforts on behalf of the national interests.[90]

At the low end of the spectrum, the MNC could choose to submit. It may be forced to in certain cases, but it is unlikely that this will be a general thing. While divestment and contract arrangements will be demanded increasingly, the essense of the MNC lies in its vast organization, its wealth, and the interdependence of its subsidiaries. The loss of any of any of these factors will reduce the multinational corporation to an international holding and consulting company, of lesser political consequence.

Conclusion

Our universe has been limited to <u>tierra firma</u>; the world model described in the Introduction has shown us just how limited that universe is. Our metaphysics was also examined in the Introduction; in contrast to earlier times, when man was defined and guided by a far vaster cosmological arena, we have found our metaphysics as limited as our universe -- the technological one. Our discussion of Ellul's work has indicated just how pervasive technique can be; if Ellul is to be taken seriously, the transfers of technology engaged in by the multinationals and sought so avidly by the nation-states should be looked at in a new light. We have seen how the nation-states, among whom the physical and ideological and human resources of the universe were once divided, are increasingly being deprived of their roles as sovereign institutions. The antagonist, the multinational corporation, has been described, and the general patterns of subversion outlined. Special attention has been paid to the nature of technology transfer, in which the multinational corporation plays such a key role. The protective measures which nation-states might take to enhance the sophistication and reduce the costs to them of technology transfers have been briefly outlined. Finally, the more general alternatives for national and international action regarding the multinational corporations have been described.

Despite the excessive length of this paper, the examination of the topic must be acknowledged as most superficial. Even so, a number of conclusions may be drawn.

The conclusion will begin with a lamentation. In preparing this paper, sources were used which presented completely divergent points of view. Scholars of impeccable credentials "proved" the pervasive power of the oil corporations and the criminal character of the "crisis." On the other hand, a couple of friends, reasonably well placed within the managerial hierarchies of Mobil and Exxon, insist the blame is not only real, but lies with other culprits. All of the data, regardless of the point of view, hinges on material provided by the major corporations themselves. Attempting to draw serious conclusions in today's world is akin to suggesting to a blind man that he can tell the difference between black and blacker if he just <u>concentrates</u>. It is all too easy for the tenured academic to scoff at the suggestion that one might actually be able to trust an Exxon executive; after all, if Ken (Galbraith) and Howie (Perlmutter) agree on something, it <u>must</u> be true. On the other hand, the executive presented with evidence of interlocking directorates among banks and major corporations will immediately suggest that an ecological fallacy (of the methodological sort) is being perpetrated; macro (structural) data is being used to draw micro (value-orientation) conclusions. <u>Of course</u> John is at Chase, his wife's father asked him to sit; and Frank is at City because it helps his credit-rating; and so on. How can you call the man a liar?

That leads to one of the unresolved questions in my own mind. Does multinational capital act as national capital, or as company capital when the chips are down? Chile has been used as proof of the first, the Suez embargo as proof of the second. Both are questioned, the first by the Ivy League, the second by the Marxists.[1] Who knows whereof he speaks?

How dependent *is* the nation-state on the multinational corporation's "contributions" to its economic development? How dependent *is* the multinational corporation on support from its home country? No matter how much material is presented in support of any one position, equally credible, and contrary, information may be found elsewhere.

Given such pathetic disclaimers, what *can* be observed on the basis of the examined material as it has been presented here?

Most striking is the distinction which nation-states, in considering the criteria for technology assessment, have failed to draw -- that between the so-called tangible economic costs of the day, and the less easily operationalized ecological and spiritual costs of the future. The first, easily recognized in unhealthy payment balances, excessive transfer prices, and visibly obsolete technology transfers, has preempted whatever attention the second might have hoped to garner. It is probably not a coincidence that the lesser developed countries have chosen to ignore whatever inclinations they might have had in the latter direction -- the continuing rise of the investment and pollution curves for the more industrialized countries give the lie to their calls for ecological responsibility.

If *anything* is to be accomplished before collapse occurs, significant action must be taken on the part of the industrialized nations to limit their own growth and pollution curves; not only are they the major source of the pollution problem, and the main perpetuators of the system of mis-allocation of resources, but their action might possibly convince the lesser developed countries that there is indeed a crisis, and that action *is* required in terms of drawing the distinction above.

How are the industrialized countries to be induced to institute their own controls? Obviously, the impetus must be either internal or external. Given the fact that the United States is the home country of a clear majority of the world's multinational corporations, and given the symbiotic relationships that appear to exist between the multinational corporations and the agencies of government charged with their regulation and supervision, there is little cause for optimism. In fact, the multinationals probably have a better grasp of the resource reserve picture than we do, and are acting to reinforce their own position, despite the obvious consequences to the world in the future. On the basis of seminar presentations, Dr. Bednar, after assuming that the companies were aware of the implications of fuel shortages, noted how easily Galbraith's analysis lent itself to making the following predictions:

> a. a short-run fossil fuel shortage would be created to drive prices to those levels at which they must be if, given the admitted long-run shortages, profits are to be optimized over the long run.
>
> b. profits at these prices would be invested in substitute energy sources so that the companies could maintain "growth" and respond "effectively" (i.e., profitably) to all aspects of energy-related economic activity.[2]

If Dr. McVeigh's data is accepted as credible, this is in fact what happened, as we have summarized in footnote fourteen, where the extent of control exerted by the major oil companies over the fields of coal, uranium, and natural gas is indicated. If the philosophies of the multinationals in other fields lend themselves to such self-service, then there is little hope that any serious efforts at reform will be undertaken in time.

The other alternative, external pressure from other nations; resumably the lesser developed countries, is equally dismal. The hances of cohesive action on the part of these nations is negligible. Not only would most of them refuse to acknowledge the problem in the face of American oblivion, but the temptation to use their increasingly scarce resources in other, more "profitable" ways is overwhelming. It has also been pointed out that independent national action on the part of the United States is somewhat easier[3] inasmuch a common ideology and certain stuctural foundations make concerted action here a more likely possibility than internationally.

It is possible to enumerate specific programs which might be engaged in by home and host governments, as we have done -- but in the face of the power to not-act amassed on the side of the corporations and their government, such programs seem beside the point.

It seems safe to conclude that unless something incredibly dramatic occurs in the next five years, that the allocation of power resources in the world will remain essentially unchanged. Even though the lesser developed countries possessing stores of raw materials may enhance their bargaining position somewhat, the shared perspective on "growth" as the ultimate goal will lead to the kind of cooperation OPEC and the oil companies seem to manifest. Technology will continue to be transferred, speeding the day when technique aids the LDCs in getting their fair share of everything, including pollution and shortages. No other institution is so eminently suited to bringing about collapse than the multinational corporation. It is for this reason, perhaps, and not for its encroachment on the sovereignty of the nation-states, that it should be brought to book. But fools and the dead don't judge.

to be continued.....

[The preceeding line was a sick joke]

Footnotes

To the Introduction:

1 Jay Forrester, World Dynamics. p. 33.

2 Daniel Meadows et al, Limits to Growth, (N.Y.: Universe Books, 1972), pp. 102-103.

3 The two most obvious limitations of the model stem from the somewhat arbitrary nature of the the assigned multipliers and from the aggregate nature of the data and the subsequent predictions. While the multipliers are generally accepted as representative, more work might be done in that area. The second limitation requires the construction of regional interaction models reflecting patterns of interaction on a regional level -- this might allow the reflection of the total collapse of one region, and the subsequent moves to survival by the others. Work along these lines is in progress at, among other places, the Battelle Institute on the West Coast, and the Oak Ridge Laboratories in Tennessee.

4 Limits, op. cit., pp. 124-126.

5 Ibid., pp. 127-128.

6 Ibid., pp. 132-133.

7 Ibid., p. 137.

8 Ibid., p. 138.

9 Ibid., p. 139.

10 Ibid., p. 140.

11 Ibid., pp. 143-144; italics added.

12 Ibid., p. 168.

13 Ibid., pp. 168, 163-4.

83 See for instance Turner's description of the Industrial Cooperative Program administered by the FAO.

84 Tannenbaum cited by Burchill.

85 Holtzmann, Straus.

86 Robinson, Düren.

87 Burchill, Matthews.

88 Perlmutter, "Tortuous Evolution.."

89 Moran

90 Boddewyn and Cracco

To the Conclusion:

1 The cohesion demonstrated by the multinationals in acting to dry up Allende's credit is cited as an example of the first case. The acquiesence of the oil corporations in not supplying American forces in the Suez area is the example of the second.

2 Charles S. Bednar, mimeo to class.

3 *Ibid.*, where the inappropriateness of the term "easier" is made apparent through the analogy of its being "easier" for a 160 pound human to lift an elephant, as opposed to a Sherman tank.

Contents

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B. Vernon, Raymond. Sovereignty at Bay: The Multinational Spread of U.S. Enterprise. New York: Basic Books, 1971.

C. American Academy of Political and Social Science. The Multinational Corporation. The Annals of the American Academy of Political and Social Science, Vol. 403 (September 1972).

D. Kindleberger, Charles P. (ed.). The International Corporation: A Symposium. Cambridge, Mass.: MIT Press, 1970.

E. Bergsten, C. Fred. "The Threat from the Third World," Foreign Policy, No. 11 (Summer 1973), pp. 102-124.

Blake, David H. "Corporate Structure and International Unionism," Columbia Journal of World Business, (March-April 1972), pp. 19-26.

Boddewyn, Jean, and Etienne F. Cracco. "The Political Game in World Business," Columbia Journal of World Business, (Janaury-February 1972), pp. 45-56.

Evans, Peter B. "National Autonomy and Economic Development: Critical Perspectives on Multinational Corporations in Poor Countries," International Organization, Vol. 25, No. 3 (Summer 1971), reprinted in Joseph S. Nye, Jr. and Robert O. Keohane (eds.). Transnational Relations and World Politics. Cambridge, Mass.: Harvard University Press, 1972, pp. 325-342.

Fink, Donald A. "The Role of the Multination Corporation in the Economic Development Percess," M.S.U. Business Topics, Vol. 20, No. 4 (Autumn 1972), pp. 59-62.

Hirschman, Albert O. "How to Divest in Latin America, and Why," in Barbara Ward, J. D. Runnals, and Lenore d'Anjou (eds.). The Widening Gap: Development in the 1970's. New York: Columbia University Press, 1971, pp. 252-274.

*For minimal comprehensive review of topic, a listing of fewest possible sources of highest caliber annotated in 2nd bibliography.

Hoskins, William R. "The LDC and the MNC: Will They Develop Together?," Columbia Journal of World Business, (September-October 1971), pp. 61-70.

Miller, Authur Selwyn. "The Global Corporation and American Constitutionalism: Some Political Consequences of Economic Power," The Journal of International Law and Economics, Vol. 6, No. 2 (January 1972), pp. 235-246.

Moran, Theodore H. "Transnational Stategies of Protection and Defense by Multinational Corporations: Spreading the Risk and Raising the Cost for Nationalization in Natural Resources," International Organization, Vol. 27, No. 2 (Spring 1973), pp. 273-287.

Perlmutter, Howard V. "The Multinational Firm and the Future," The Annals of the American Academy of Political and Social Science, Vol. 403 (September 1972), pp. 139-152.

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______. "The Tortuous Evolution of the Multinational Corporation," Columbia Journal of World Business, (January-February 1969), pp. 9-18.

Vagts, Detlev F. "The Global Corporation and International Law," The Journal of International Law and Economics, Vol. 6, No. 2, (January 1972), pp. 247-262.

Vernon, Raymond. "The Multinational Enterprise: Power vs. Sovereignty," Foreign Affairs, Vol. 49 (July 1971), pp. 736-751.

NOTE: The material above is divided into five groups. Each group is self-contained, i.e. may be considered as a substitute for each of the other groups.

2nd Bibliography*

Alger, Chadwick F. "The Multinational Corporation and the Future International System," The Annals of the American Academy of Political and Social Science, Vol. 403 (September 1972), pp. 104-115.

A general summary and criticism of predictions by others, notably Vernon and Perlmutter. "The future international system will be composed of large regional states, with increasing bipolarization between rich and poor regions. The major countervailing force, global, functional, intergovernmental organizations, will probably not be able to prevent this trend because of the unwillingness of the rich superpowers to permit these organizations to be responsive to the demand [for assistance rather than regulation] of the less developed countries.

American Academy of Political and Social Science. The Multinational Corporation. The Annals of the American Academy of Political and Social Science, Vol. 403 (September 1972).

An excellent volume with thirteen articles relevant to the general topic of the multinational corporation, divided into four sections: the implications for the industrial system, the impact on the nation-state, the consequences for the international system, and the future of multinational firms.

Behrman, Jack N. "Can Governments Slay the Dragons of Multinational Enterprise?," European Business, (Winter 1971), pp. 53-60.

Points out the differences between international holding companies (IHCs), and multinational corporations (MNCs). The first is the "classical" form of direct foreign investment, the second a more modern form with differing implications for the nation-state. Host governments are allowed three alternatives: restriction, competition, or harmonization of policy with other sovereign states.

__________. "Is There a Better Way for Latin America?," Columbia Journal of World Business, (November-December 1971), pp. 61-71.

Examines Latin American policy toward the multinational corporations, noting particularly the role of the military as an

*Material directly pertinent to the topic.

obstacle to regional integration through the MNCs. Emphasizes the importance of equity as a new criterion for the allocation of resources, rather than efficiency. Defines meaning of equity for Latin American governments as being not only "a 'just distribution' of benefits of industrial advance, but also as an acceptable sharing of participation in the process of industrial and agricultural growth. This means a diversity of employment along with adequate levels of employment; it means a role in the development and design of industrial processes and products; it means a sharing in the technological advances; it means a sharing in decision-making; and in many instances, it means no significant drain on foreign exchange resources of the country."

__________. "The Multinational Enterprise: Its Initiatives and Governmental Reactions," The Journal of International Law and Economics, Vol. 6, No. 2 (January 1972), pp. 215-233.

Reiterates distinction between classical form of direct foreign investment, the international holding company, and the MNC. Indicates that the predominant form of investment in Latin America is of the classical type, not of the multinational sort. Notes that the potential of MNCs for internationally integrating the world markets must be judged in light of its unfavorable impact on sovereignty and local aspirations of nation-states. Questions legitimacy of MNCs power, as well as its sense of responsibility to individual governments or even to people. Notes that U.S. government policy divisions inappropriate (ennumerates agencies independently concerned with the regulation or supervision of various aspects of MNC operations), and examines the three alternative courses of action open to host governments. Ennumerates types of restrictions possible, and gives specific examples of what could be considered "good" corporate behavior. Lists areas (taxation, extraterritorial jurisdiction, etc.) requiring harmonization of government policies on an international basis.

Bell, Daniel. The Coming of Post-Industrial Society: A Venture in Social Forecasting. New York: Basic Books, 1973.

Where reality was once nature, it became technics. Now Bell maintains that reality is primarily manifested in the social world. He examines the development and trends of modern society, investigating the interactions among technocrats, managers, the military, politicians, and labor leaders. The group is the focal point of society, and the corporation will be socialized away from its prime concentration on profits, growth, or efficiency, toward an acceptance of its responsibilities (to members and the community) as a major social institution.

Blake, David H. "Corporate Sturcture and International Unionism," Colbia Journal of World Business, (March-April 1972), pp. 19-26.

Outlines the possible union stategies: 1) information exchange, 2) consultation, 3) co-ordination of policies and tactics, and 4) drive for international, regional, or national controls on multinational corporations. Outlines characteristics of MNCs inducive of international union co-operation: 1) distant decision-making regarding wages, 2) world perspective on mangement, 3) ease of substitutes being utilized, and 4) distance of decision making regarding production locations. Emphasizes future and present role of the international trade secretariats (and lists the most active).

Boddewyn, Jean and Etienne F. Cracco. "The Political Game in World Business," Columbia Journal of World Business, (January-February 1972), pp. 45-56.

Excellent article outlining the four roles of governments: as guardians, innovators, supplemental agents, and correctors of the economic system. Provides detailed matrix of the relationship of various corporate functions to goals of national interest, national sovereignty, and national identity considerations. Outlines strategic alternatives for MNC when faced with local demands for participation, for creation of mass market. Concerning the art of negotiation, suggests offensive measures: 1) examination of role of private enterprise in particular nation's development, 2) appointment of top executive (not from public relations) to handle government laison, 3) participation, preferably through local trade associations, in the development and application of public policy in the host country. Suggests defensive measures: 1) limitation of vulnerability (raise costs of nationalization by increasing interdependence of subsidiaries), 2) establishment of low profile, 3) development of local ties and allies (suppliers, consummers, bankers), and 4) support of interests of local administrators and policy makers (such as the training of workers) and good publicity concerning such efforts.

Brown, Lester R. "The Multinationals and the Nation-State," VISTA, (June 1972?), pp. 15, 50-53.

Notes scope of multinational corporations' power relative to budgets of other nation-states. Points out differences between industrial complimentation agreements and regional econmic groups. Notes need for collective MNC action (or external regulation) regarding social problems and so on.

Burchill, C. S. "The Multi-National Corporation: An Unsolved Problem in International Relations," Queen's Quarterly, Vol. 77 (Spring 1970), pp. 3-18.

Discusses economic consequences of foreign investment, and politically consequent tendencies; laments lack of international law for multinational corporation, and suggests U.N. as means of filling vacuum. Specifies four conditions for ameliorating exploitation of LDCs by MNCs and vice-versa, and outlines benefits to each party if conditions accepted.

Business Week. "Commentary/Foreign: The Questions the ITT Case Raises," (March 31, 1973), p. 42.

Looks at Senator Frank Church (D-Idaho) and his subcommittee on the multinational corporation, discusses need for close government and business strategic relationship, and code of law for the MNC.

Deutsch, Karl. "The Politics of Power and the Politics of Growth," in The Nerves of Government (Glencoe: Free Press, 1963), reprinted in Richard Kostelanetz (ed.). Beyond Left & Right: Radical Thought for Our Time. New York: William Morrow & Co., 1968, pp. 377-387.

Düren, Albrecht. "Multinational Companies as a Political Problem," The World Today (November 1972), pp. 473-482.

Notes lack of international law regarding the MNC, mentions one specific pragmatic solution, outlines common host country objections to MNC power.

Evans, Peter B. "National Autonomy and Economic Development: Critical Perspectives on Multinational Corporations in Poor Countries," International Organization, Vol. 25, No. 3 (Summer 1971), reprinted in Joseph S. Nye, Jr. and Robert O. Keohane (eds.). Transnational Relations and World Politics. Cambridge, Mass.: Harvard University Press, 1972, pp. 325-342.

Excellent article pointing out the manner in which the MNC reduces economic and political autonomy and benefits of the LDCs. Very convincing ennumeration: withdrawal of capital, reduction of political efficacy in redistributing wealth, introduction of inappropriate technologies and lifestyles and development strategies, further separation of the elites from the masses; suggests that state must assert autonomy, that this implies (dictates!) increased state control of industry and foreign economic relations, and that only the modernization of public bureaucracies will allow this effort to succeed.

Fatouros, A. A. "The Computer and the Mud Hut: Notes on Multiantional Enterprise in Developing Countries," Columbia Journal of Transnational Law, Vol. 10, No. 2 (Fall 1972), pp. 325-363.

After rehashing in an average way the various definitions of the MNCs, and the nature of their activities in the LDCs, Fatouros goes on to summarize and comment on the legal alternatives for control of the multinational corporation: 1) unilateral action by host or home country; 2) bilateral action, by two homes, two hosts, or host and home; 3) multilateral action by universal groups (hosts and homes) or non-universal groups (homes, hosts).

Fink, Donald A. "The Role of the Multinational Corporation in the Economic Development Process," M.S.U. Business Topics, Vol. 20 No. 4 (Autumn 1972), pp. 59-62.

Excellent summation and ordering of LDC perspectives and the ground rules which MNCs must follow in dealing with LDCs in the future. Lists types of projects most likely to be welcome in LDCs.

Gabriel, Peter P. "Adaptation: The Name of the MNC's Game?," Columbia Journal of World Business, (November-December 1972), pp. 7-14.

Disagrees with Perlmutter and Vernon -- suggests that MNCs will lose a substantial portion of their power, and will become primarily service (contract) companies.

Gabriel, Peter P. "MNCs in the Third World: Is Conflict Unavoidable?," Harvard Business Review, (July-August 1972), pp. 93-102.

Suggests two conditions for new rapport between MNCs and LDCs: 1) reduction of risk, and 2) honoring of all agreements by the LDCs. One suggested innovation: an international financing agency.

Gilpin, Robert. "The Politics of Transnational Economic Relations," International Organization, Vol. 25, No. 3 (Summer 1971), reprinted in Joseph S. Nye, Jr. and Robert O. Keohane (eds.). Transnational Relations and World Politics. Cambridge, Mass: Harvard University Press, 1972, pp. 48-69.

Makes the basic point that it is the political structure of the world that sets the stage for economic relations. Points out the importance of the Pax Britannica (enforced by British naval power) and draws analogy to Pax Americana. Uses as examples of the primacy of political considerations the not-so-economic relationships the U.S. holds with West Germany (troops in exchange for access to EEC) and Japan (access to U.S. markets in exchange for military bases), and denigrates political impact of MNC on any other than a domestic basis, and then only as one of many interest groups.

Hirschman, Albert O. "How to Divest in Latin America, and Why," in Barbara Ward, J. D. Runnals, and Lenore d'Anjou (eds.). The Widening Gap: Development in the 1970's. New York: Columbia University Press, 1971, pp. 252-274.

Notes role of MNC as mixed blessing in LDCs, asserts the increasing detriment to LDC economies of MNC control and ownership (following an initial advantage). Believes the art of liquidation should be revived if damaging expropriations are to be avoided -- suggests an "inter-american divestment corporation" which would be responsible, an an intermediary agency between governments and the MNCs, for establishing "fair prices," holding shares until governments or suitable buyers can be found (not the already wealthy elites). Strongly supports the built in divestment schemes which many Latin American countries are begining to dictate, in which either the time span is limited (in which case the company may want to extract as much profit as possible), or the profit is set (in which case the company may desire to reinvest its profits for a number of years, thereby enjoying control for as long as it doesn't overrun profit figure), after which time the MNC may remain as a minority stockholder.

Holtzmann, Howard M. "Long term multinational disputes: A Challenge to Arbitration," Arbitration Journal, Vol. 24, No. 4 (1969), pp. 234-238.

Suggests complexity of contemporary disputes, given different institutional arrangements, and need for all international arbitration associations to simplify their rules.

Hoskins, William R. "The LDC and the MNC: Will They Develop Together?," Columbia Journal of World Business (September-October 1971), pp. 61-70.

Ennumerates eight causes of LDc nationalistic/xenophobic reaction against the multinational corporation: 1) similarities to colonial "we the people, they the exploiters," 2) expressions of superiority by MNCs or their representatives, 3) foreign allegiance of MNCs or their representatives, 4) visible success of MNCs (and profit) where local entrepeneurs either failed, or took no initiative, 5) minority group behavior of typical overseas executive, 6) initial suspicion of complex foreign organization exerting influence on local affairs, exacerbated by local political demagogues, 7) inability of LDCs to join wealthe ranks of MDCs, of which MNCs are most visible reminder, and 8) "exploitation complex" fed by impact of MNC on use of local capital, repatriation of profits, overwhelming of local entrepreneurs.

Huntington, Samuel P. "Transnational Organizations in World Politics," World Politics, Vol. 25, No. 3 (April 1973), pp. 333-368.

Contrasts international with transnational organizations. Generally a simple summary of Nye & Keohane (1972) but some good comments on MNC/LDC relations: feels are complimentary rather than oppositional in that each performs different functions and controls different resources -- it is not a matter of one trying to obliberate the other, but rather of both attempting to reach a consensus on their mutual objectives. Uses this line of thought to criticize comments by others on impending death of the nation-state.

Hymer, Stephen. "The Efficiency (Contradictions) of Multinational Corporations," The American Economic Review, Vol. 60 No. 2 (May 1970), pp. 441-453.

As summarized by colleague McKinnon in discussion following presentation: 1) the nature of technical change has been such as to make the growth of large corporations optimal within developed nation-states, 2) organizations have great competitive advantages in transfering technology efficiently to the LDCs by operating directly there, 3) however, there are contradictions and perversities in the transfer process which individual host governments cannot deal with adequately because of their limited jurisdictions and small size. Domestic monetary and fiscal policy can be easily subverted by international flows of capital and commodities [such as transfer pricing, excess royalty payments, license fees], and domestic entrepreneural development may be retarded; and 4) there is a need for a worldwide bureacracy exercising full legal control over the multinational corporations. Alternatively, MNC access to LDC markets could be limited.

Jay, Antony. Management and Machiavelli: An Inquiry Into the Politics of Corporate Life. New York: Holt, Rinehart & Winston, 1967.

Very enjoyable reading. Drew credible comparison between the corporation and Machiavelli's pragmatist political state. Using historical examples contrasted with personal or commonly known corporate experience, drew close analogy in many respects. Spent much time discussing the importance of creativity and the need for leaders combining both yogic and commissarish qualities.

Johnson, Harry G. "The Multi-National Corporation as an Agency of Economic Development," in Barbara Ward, J. D. Runnals, and Lenore d'Anjou (eds.). The Widening Gap: Development in the 1970's.

Specifies contributions which corporations make to development, explains why uneven development is likely to result (concentration of MNCs in extractive or high technology areas, role of MNC as profit-making institution); notes direct and indirect impact of MNC on development of local economy: training of personnel, development of local suppliers, education of local consummers, contribution to government revenues; laments the ignorant demands of LDC governments for "fair wages" unsuitable to local conditions, and will discourage logical labor-intensive development.

Kaiser, Karl. "Transnational Relations as a Threat to the Democratic Process," International Organization, Vol. 25, No. 3 (Summer 1971), reprinted in Joseph S. Nye, Jr. and Robert O. Keohane, (eds.). Transnational Relations and World Politics. Cambridge, Mass.: Harvard University Press, 1972, pp. 356-370.

"The intermeshing of decisionmaking across national frontiers and the growing multinationalization of formerly domestic issues are inherently incompatible with the traditional framework of democratic control." Kaiser lists three types of multinational politics: multibureaucratic decisionmaking, transnational politics, and multinational integration. He suggests that not only must Congress and parliaments re-assert their authority [a la Galbraithian reforms] but that they must do this in every conceivable issue area, allowing nothing to be relegated to the executive arena. Further, the society must be mobilized, or the structural change will be irrelevant.

Kapoor, Ashok. "Multinationals in Asia: The Understanding Gap," Far Eastern Economic Review, (September 16, 1972), pp. 41-43.

Points out specific issues and perspectives in Asia (in a very summary way), e.g. notes lack of business background of most Asian politicians (in obvious contrast to the United States, where the MNC mind-set is ingrained in the government apparat). Notes three areas of conflict between MNCs and Asian LDCs: 1) pace of introducing joint ventures, 2) role of government in joint ventures, and 3) question of conflicting MNC responsibilities to shareholders and host governments.

Kindleberger, Charles P. (ed.). The International Corporation: A Symposium. Cambridge, Mass.: MIT Press, 1970.

An excellent collection of articles coveringall aspects of the multinational corporation. A good basic text, complimenting Vernon, The Annals, and the U.N. report.

Krause, Lawrence B. "The International Economic System and the Multinational Corporation," The Annals of the American Academy of Political and Social Science, Vol. 403 (September 1972), pp. 93-103.

Reviews Kindleberger's analogy of the role of the MNC in the world economy as contrasted with the role of the domestic American corporation in the economic interaction of the states of the U.S. Discusses Vernon's concept of "product cycle" as a more realistic economic theory of international trade, and notes the initiatives and consequences of MNC technology transfer. Finally, points out manner in which MNC integrates the world market, maximizing factor efficiencies and reducing wage differentials, while at the same time undermining the sovereignty of national governments trying to assert independent economic policies. Concludes by callings for new arrangements within old Bretton Woods system, and the establishment of an international regulatory agency for MNCs.

Krosigk, Friedrich Von. "Marx, Universalism, and Contemporary World Business," International Studies Quarterly, (December 1972), pp. 530-549.

Very interesting, provided background material relating to Marx's theory of universalism and Lenin's theory of neo-imperialism to the rise and potential of the multinational corporation. Weak ending with ambivalent conclusion, but some good thoughts in background, particularly regarding role of "bribed" (unconscious) workers and the satellite LDCs forecast by Lenin.

Kuhns, William. "A New Manichaeism: Jacques Ellul," in William Kuhns, The Post-Industrial Prophets: Interpretations of Technology.

Good discussion of Jacques Ellul's Technological Society, Propaganda, and his recent paper "Technological Society," in which he presents five pre-conditions for the amelioration of the conditions created by the self-perpetuating technological ethos he describes in Technological Society: 1) diagnosis, 2) destruction of myth, 3) learning of detachment and humor regarding technology, 4) return to philosophy and metaphysics, and 5) continuing dialogue between the "enlightened" and the technicians. He does not suggest any constructive solutions.

Litvak, I. A. and C. J. Maule. "The Multinational Corporation: Some Perspectives," Canadian Public Administration, Vol. 13 (Summer 1970), pp. 129-139.

Examine economic and political-legal challenges posed by the MNC to the sovereignty of the nation-states: in the economic arena the MNC can control growth of a nation-state to a large extent by its decisions regarding the extent of initial and recurrent direct investment in the affiliate. Stability can be affected through the impact the MNC has on monetary and fiscal policy, which it can subvert, and its impact on the balance of payments and the stability of its employment policies. In the political-legal arena, the role of the MNC as a manifestation of home government prejudices (trading with the enemy) and policies (anti-trust) can cause serious questions to arise regarding the infringement on the host country's sovereignty.

———. "The Multinational Firm and Conflicting National Interests," Journal of World Trade Law, (1971?), pp. 309-318.

As key variables in assessing the impact of host government policies on multinational corporations, Litvak and Maule isolate: 1) the corporate philosophy of the parent company (regarding, for instance, exports, regional, international orientations), 2) the organizationsl relationship between the parent and the subsidiary (branch, wholly-owned, partly-owned, joint venture, contractual arrangement), and 3) the degree of participation in management and equity by nationals of the host country. A matrix composed of the first two variables suggested fifteen degrees of alternative action.

Matthews, Roy A. "The International Economy and the Nation-State," Columbia Journal of World Business, (November-December 1971), pp. 51-60.

The MNC must grant each LDC some autonomy -- governments will continue to negotiate with each other. Discusses supra-national chartering agency.

Mendershausen, Horst. "Transnational Society vs. State Sovereignty," Kyklos (Bern), Vol. 22, No. 2 (1969), pp. 251-273.

Very interesting. Notes post-WWII continuing duality of transnational society and sovereign states, contrasts medieval and 19th century harmonization models with the U.S./U.S.S.R. bipolar cold war camp, what HM calls the latest attempt at harmonization. Explores pattern, origin, management, and decay of system, posits five modern alternatives: 1) super-power duumvirate, 2) world empire, 3) self-government of transnational economy, 4) regional integrations, and (in his opinion the most feasible) 5) prudent staecraft.

Miller, Arthur Selwyn. "The Global Corporation and American Constitutionalism: Some Political Consequences of Economic Power," The Journal of International Law and Economics, Vol. 6, No. 2, (January 1972), pp. 235-246.

Declaring nation-states to be obsolete, went on to enumerate ten points of contention demonstrating the impact of the MNC in public policy and foreign affairs: challenge of MNC for dominance, breakdown of nation-state as social order, rise of group as basic social unit in modern society, recognition of governing power of MNC and other large institutions, the ramifications this last has for the sharing of sovereign powers by the state government and the MNC, and the questions it raises about the political legitimacy lacking from the MNC, the increasing transcendance of corporate loyalties over national loyalties. Good summary from a legal mind-set. In passing, a very interesting personality on paper.

Millstein, Ira M. "Multinational Operations Under Changing U.S. Economic Policies," The Conference Board Record, (August 1972), pp. 51-54.

Outlines the major considerations in international trade and investment: 1) the humanist and legal problem, 2) the effect of multinational operations on the American employment situation, and the balance of payments, 3) trade barriers, 4) the legislative (protectionist) proposals, and 5) monetary fund events and other international policies. Suggests that anti-trust legislation an impediment and possible threat to the international success of the U.S.; we must first select goals, and then modify or dispose of anti-trust policies as appropriate.

Moran, Theodore H. "Transnational Strategies of Protection and Defense by Multinational Corporations: Spreading the Risk and Raising the Cost for Nationalization in Natural Resources," International Organization, Vol. 27, No. 2 (Spring 1973), pp. 273-287.

A very instructive tale contrasting Anaconda's and Kennicott's strategies in Chile. Kennicott, by selling 51% equity interest to Chile, using those funds to expand, borrowing from international banks, selling output in advance to international banks, insuring the sale with AID against expropriation, forcing Chile (not a lesser agency or company) to unconditionally guarantee the sale and loan, managed to keep company capital out while increasing the assessable value of the Chilian operations, line up international outrage against expropriation and in support of compensation well in advance, and made the cost of nationalization as expensive as possible for Chile, and as beneficial as possible for Kennicott.

Nanus, Burt. "The World of Hunger -- A Management Challenge," Columbia Journal of World Business, (January-February 1971), pp. 51-58.

Forecasts, with statistical support, the increase of population and commensurately widespread starvation and malnutrition in the LDCs, as well as related political and social instability as fraustration of the have-nots incites them to revolution or aggression against the haves. Reviews the state of technological, industrial, economic, and cultural arts as they apply to the problem, and concludes that only through a massive integrative program emphasizing management's pragmatic perpectives could anything possibly be achieved. Goals: to develop more complete information, to understand and perhaps model the complex interrelationships of the arts above, and to develop management and mass media communication techniques capable of instituting plans.

Nisbet, Robert. "The Impact of Technology on Ethical Decision-Making," in Robert Lee and Martin E. Marty (eds.). Religion and Social Conflict. New York: Oxford University Press, 1964; reprinted in Jack D. Douglas (ed.). The Technological Threat. Englewood Cliffs, New Jersey: Prentice-Hall, 19 , pp. 39-54.

Good essay, treating the impact of technology in 1) generalizing norms, 2) abstracting scientific norms from the "moral-personal" context, 3) individuating man away from small groups, 4) rationalizing and standarizing behavior, eliminating the need for individual considerations, the need for ethical decision making. When technology becomes pervasive and institutionalized, then arena for institutional or individual conflict (vital to ethical decision-making) is eliminated.

Nye, Joseph S., Jr. "Multinational Enterprises and Prospects for Regional and Global Political Integration," in The Annals of the American Academy of Political and Social Science, Vol. 403, (September 1972), pp. 116-126.

Provides measures for regional economic, social, and political integration, reviews Lindberg's scale for measuring the locus of governmental activity, and then explores impact of the MNC on seven integrative process mechanisms and structural and perceptual conditions. While Nye acknowledges the utility of the MNC in transfering technology, allocating resources, et al; he points out differences in responses available to LDCs vs. MNCs-- LDCs are more likely to lose their sense of identity and suffer from distributive inequalities (reinforced gap between elites and peasants).

Vernon, Raymond. "Multinational Business and National Economic Goals," International Organization, Vol. 25, No. 3 (Summer 1971), reorinted in Joseph S. Nye, Jr. and Robert O. Keohane (eds.). Transnational Relations and World Politics. Cambridge, Mass.: Harvard University Press, 1972, pp. 343-355.

Gives short shift to problems of LDCs in world context; emphasizes the benefits LDCs may derive from MNCs, and glosses over the impediments to growth demonstrated by Evans; suggests that in order to better enhance positive aspects of MNCs in world economics, advanced countries should limit national jurisdiction, co-ordinate national policies, sort out nationalities of subsidiaries (accept Calvo Clause), provide for international or multinational adjudication and enforcement; the LDCs are treated as a third party unsucceptible to international action, but for whom the U.S. should benignly revoke the Hickelooper amendment, accept the Calvo Clause, and begin substituting multilateral for bilateral assistance.

__________. "The Multinational Enterprise: Power vs. Sovereignty," in Foreign Affairs, Vol. 49 (July 1971), pp. 736-751.

A short version of the conclusions drawn in his book: Sovereignty at Bay. Introduces concept of product cycle, with its conclusion that MNC must continue innovating and organizing to keep ahead of local firms that rapidly acquire competing expertise -- notes loss of MNC position in extractive industries and potential for continuing leadership in manufacturing. Political questions include LDC demands for control, and MNC fears of political instability. Notes that contrary to popular academic opinion, MNCs are reluctant to utilize power of U.S. government. While local participation and eventual divesture are remedies to local sense of impotence, divesture might be detrimental to future operating position of the LDC. Doubts that nations will surrender to international organization the control that they are not willing to give to MNCs -- looks for rise of other countervailing institutions, such as labor. First question to be solved: equitable distribution by governments of tax revenues, next, question of jurisdiction over subsidiaries. Endorses Calvo Clause, calls for international adjudicatory council.

__________. Sovereignty at Bay: The Multinational Spread of U.S. Enterprises. New York: Basic Books, 1971.

Crammed with statistical and anecdotal evidence and examples, Vernon's book seems to cover all the bases; beginning with in-depth looks at the extractive and manufacturing industries, he goes on to examine the particular nature of MNCs, their impact on home and host countries, and the alternatives for the future, including tentative solutions to the more pressing problems: taxation and extraterritorial jurisdiction. An essential text.

Walters, Robert S. "International Organizations and the Multinational Corporation: An Overview and Observations," The Annals of the American Academy of Political and Social Science, Vol. 403, (September 1972), pp. 127-138.

Generally reviews existing interaction between international organizations (ICSID, ICFTU, UNIDO, UNCTAD, OBCD, OPEC, ACM), and the multinational corporations. Notes reticence of LDCs in accepting intervention of international organizations substantially controlled by northwestern interests, and notes various other anti-global organizational influences -- blase U.S.A. and MNCs, banker mentality distrusting rhetorical U.N.; concludes that informal, multilateral agreement on anti-trust actions, tariffs, and taxes might be more likely and more feasible in terms of providing the least disturbance among the LDCs.

Waltz, Kenneth N. "The Myth of National Interdependence," in Charles P. Kindleberger (ed.). The International Corporation: A Symposium. Cambridge, Mass.: MIT Press, 1970, pp. 205-223.

Contrary to popular opinion, believe that interdependence, properly understood, is on the decline. "The size of the two greatest powers gives them some capacity for control and at the same time insulates them to a considerable extent from the effects of other states' behavior. The inequality of nations produces a condition of equilibruim at a low level of interdependence."

Ward, Barbara and René Dubos. "Only One Earth: The Care and Maintenance of a Small Planet," Columbia Journal of World Business, (May-June 1972), pp. 13-25.

Emphasized commercial habit of external diseconomies, and suggested that costs must be met thorugh public action. Supported international research agency for pollution control.

Ward, Barbara, J. D. Runnals, and Lenore d'Anjou (eds.). The Widening Gap: Development in the 1970's. New York: Columbia University Press, 1971.

Another good basic collection of articles complementing the volume by Kindleberger, the one by Nye and Keohane, and the U.N. document.

Welles, John G. "Multinationals Need New Environmental Strategies," Columbia Journal of World Business, (Summer 1973), pp. 11-18.

Good article, addressing three questions: 1) how can environmental dimension be injected into MNC management, 2) should MNCs take advantage of "pollution havens," and 3) what can MNCs do to stimulate uniformity in international pollution control.

Wells, Louis T., Jr. "The Multinational Business Enterprise: What Kind of International Organization?," International Organization, Vol. 25, No. 3 (Summer 1971), reprinted in Joseph S. Nye, Jr. and Robert O. Keohane, (eds.). Transnational Relations and World Politics. Cambridge, Mass.: Harvard University Press, 1972, pp. 97-114.

Very general description of MNC, its growth and spread, and the rationale for area vs. product organizational structure overseas (as well as the general implications for the host and home countries). Introduction was best, summarizing concisely the manners in which multinational corporations bypass economic policies of governments, and exploit situations with-serious restriction.

Wooton, Leland M. "The Multinational Corporation: Administering Developement in a Global Political System," Management International, Vol. 11, Nos. 4 & 5 (1971), pp. 5-15.

Suggests that MNCs fill resource, foreign exchange, manegerial, and technology gaps in LDCs. Does not consider problem in depth (profit drain, stifling of local talent?). Does mention interesting perspective on "penetrated system" (Rosenau's term), i.e. each societies' actions and policies are influenced by extra-societal actors in today's world.

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Aharoni, Yair. "On the Definition of a Multinational Corporation," in A. Kapoor and Philip D. Grub (eds.). The Multinational Corporation in Transition: Selected Readings and Essays. Princeton: Darwin Press, 1972.

A simple summary of a number of definitions -- structural, performance, behavioral, and so on, with no clear synthesis of the material.

Bell, Daniel. "Notes on the Post-Industrial Society," in The Public Interest (1967), pp. 24-35, reprinted in Jack D. Douglas (ed.). The Technological Threat. Englewood Cliffs: Prentice-Hall, 19 , pp. 8-20.

Characterizations of society: service economy, knowledge (theory over practice?), planning government as controlling institution, mobilized (military) society; suggests that the politician holds the power, distinguishes between the politician and the technocrat.

Bradley, Gene E. and Edward C. Bursk. "Multinationalism and the 29th Day," Harvard Business Review, (January-February 1972), pp. 37-47.

Notes on interview with Maisonrouge and Borch on need of the MNC to adapt organizational structure and goals to the social needs of home and host countries, as well as the commercial.

Chase, Edward T. "Politics and Technology," The Yale Review (1963), reprinted in Douglas, op. cit., pp. 170-185.

Firmly believes in ability of government and politics to solve problem of technology.

Chemical Marketing Reporter. "Multinationals Deemed Threat to Nat'l (sic) Defense," (March 12, 1973), pp. 7,27.

Short note on testimony before Ribicoff committee re effect of MNCs on world economies. An industrial spokesman suggests four points for any new trade bill opposed to the Burke-Hart version sponsored by labor. Not a good source.

*Materials reviewed and found lacking relative to project at hand.

Economist, The. "Don't Worry, Nobody's Really Stealing Your Sovereignty," (July 22, 1972), pp. 80,82.

Notes lack of international law regarding "unique" MNCs, and mentions ability of one government to interfere with subsidiary operations in another government's domain. While good for keeping current, this type of source was too fragmented for the blitz research involved here.

Feierabend, Ivo K. and Rosalind L. Feierabend. "Aggressive Behavior in Politics: A Cross-National Study," Journal of Conflict Resolution, (Fall 1966), pp. 249-271.

Cited by Green (1972), they identify thirty types of politically destabilizing events, assigning each a weight from 0 to 6 according to their level of intensity. For future reference.

Green, Robert. "Multinational Profitability as a Function of Political Instability," Management International, Vol. 12, No. 6 (1972), pp. 23-29.

Tested hypothesis: "A positive relationship exists between political instability and foreign investment profitability. The higher the political instability of a nation, the higher the rates of return on the foreign investment located in that nation." Green found a definite correlation, with the caveat that in manufacturing political instability affected investment per se (reducing it), rather than allowing investment at higher rates of return as in the extractive industries.

Hobbing, Enno. "The World Corporation: A Catalytic Agent?," Columbia Journal of World Business, (July-August 1971), pp. 45-51.

Quoting Tannenbaum (a peripheral article in itself), Hobbing exercised his rhetorical capacities in speaking of the supranational corporations concern for "man."

Huntington, Samuel P. "Political development and the decline of the American System of World Order," in Daniel Bell (ed.). Toward the Year 2000: Work in Progress. Boston: Beacon Press, 19 , pp. 315-317.

Kuhns, William. "Engineering the Future," in William Kuhns, The Post-Industrial Prophets: Interpretations of Technology. New York: Weybright and Talley, 19 , pp. 205-219 (Chapter 9).

Notes importance of systems design in controlling open and closed systems (ecological et al.) which are characterized as being holistic, requiring multiple control, and having a tendency toward quantification. Speaks about Wiener's theory of cybernetics which was meant to defeat entropy by providing feedback within and among machines and men. Notes danger of installing feedback in machines, since they will not necessarily make the same decisions men would (?).

Martino, Edoardo de and Bruce A. Searle. "Operating on a Global Basis... Today and Tomorrow," Columbia Journal of World Business, (September-October 1972), pp. 52-61.

World-wide, geographical, and functional organization modes are discussed.

Nation's Business. "A Survival Strategy for the World Corporation," (April 1973), pp. 34-36.

Standard call for close interaction (particularly social) with all governments.

Orlans, Harold. "Educational and Scientific Institutions," in Bell, op. cit., pp. 191-199.

Not very useful or definitive.

Pisar, Samuel. "New Dimensions of Business: Multinational Corporations Vs. Nations," Current, (April 1972), pp. 38-44.

Gung-ho and rather rhetorical commentary on "potential" of the MNC. Very simplistic view of "pragmatist" businesses and "nationally egoistic" or "ideologically dogmatic" politicians.

Quigg, Philip W. "Organizing for Global Environmental Management," Columbia Journal of World Business, (May-June 1972), pp. 26-30.

Criticizes business for lack of organization and concern in dealing uniformly and collectively with pollution.

Reynolds, Calvin. "Career Paths and Compensation in the MNCs," Columbia Journal of World Business, (November-December 1972), pp. 77-87.

Excellent and clear discussion of base pay, premiums, and allowances as stimulus for mobility and hardship posts. Ties to corporate goals, suggests a single-premium mobility pay and allowance phase-outs as optimum incentives for global executive cadre.

Rome, Edwin P. "Anti-trust problems in Multinational Corporations," Conference Board Record (August 1972), pp. 55-58.

Seriously suggests that anti-trust actions by sovereign states can reach outside national boundries as a matter of course, and will "continue" to "control" the MNCs.

Rostow, Eugene V. "Thinking About the Future of International Society," in Bell, op. cit., pp. 310-314.

Notes how unstable present situation is, with U.S. playing role of world "policeman," and suggests that U.S. may "cop out" and force Europe and Japan to accept a share of the responsibility. Alternatives: U.S. and U.N.; U.S. and U.S.S.R.; Not U.S. and Japan & China in Asia. Whatever happens, union of Japan and China bound to affect world order.

Sindona, Michele. "Symposium with Michele Sindona on the Role of Multinational Corporations," Columbia Journal of World Business, (Summer 1973), pp. 43-48.

The panel of professors was especially disappointing.

Smith, Dan Throop, Lee L. Morgan, and Elizabeth R. Jager. "The Foreign Trade and Investment Act of 1972: Three Points of View," Columbia Journal of World Business, (March-April 1972), pp. 11-18.

Smith and Morgan (academy and business) are against the bill, which they contend will stifle business, end innovation, etc. Jager (AFL-CIO) supports the bill, which will protect jobs by establishing quotas, ending tax breaks, etc.

Sola Pool, Ithiel de. "The International System in the Next Half-Century," in Bell, op. cit., pp. 318-323.

Very specific and interesting predictions. Of most interest: 1) economic problems will lead to regional federations in Europe, Africa, and Asia; 2) fear of new weapons systems will lead to transnational ties among political parties.

Stendahl, Krister. "Religion, Mysticism, and the Institutional Church," in Bell, op. cit., pp. 222-227.

1) posits religion as a particular aspect of society's culture, implicitly an autonomous and counter-posed one; 2) suggests that it is institution of church, rather than faith of Christianity, that will endure and eventually loosely bind men together.

Stobaugh, Robert B. "The Multinational Corporation: Measuring the Consequences," Columbia Journal of World Business, (January-February 1971),

A reference cited by Nye and Keohane (1971/1972). note that in his essay RBS argues against images of the MNC "as one economic entity controlled by one 'economic man" in the headquarters rather than what the enterprise really is: an organi-

zation of numerous staff groups and subsidiaries, some of which are large and powerful in their own right and among which considerable negotiation takes place."

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Very skimpy recapitulation of older comments.

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Good concise discussion of 4 factors affecting relative cost and feasibility of technology transfers: 1) complexity of the product and production techniques, 2) the transfer environment of the donor and recipient countries, 3) the absorbtive capacities of the recipient firm, and 4) the transfer capability and profit-mazimization strategy of the donor firm. Following discussion of licensing policies of specific firms, concludes by noting the emergence of the international corporation "as an important instrumentality of resource allocation in the world economy."

Bar-Zakay, Samuel N., "Technology Transfer Model." Industrial Research and Development News, Vol. 6 No. 3 (1972), pp. 2-11.

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Mishan, E. J. "To Grow or Not to Grow: What Are the Issues?" Encounter (London), Vol. 40 (1973), pp. 9-29.

Excellent organization of arguments. Began by isolating technology as the crucial variable, having demonstrated the individual inadequacy of natural resources or the science of economics. Focused on questions of value of sustained economic growth, oriented toward "quality of life" and potential for increased enjoyment and fulfillment in life through economic growth. After eliminating seven arguments in favor of growth as irrelevant: 1) no alternative to economic growth, 2) manifest desire for economic growth, 3) technology as potential do-gooder, 4) growth as potential do-gooder, 5) growth as a charity ball, 6) appeal to the parameters (ingrained, institutionalized values) of the system, and 7) the no-growth pains of a growth economy; went on to highlight the detrimental effects of spillovers, the role of discontent as the motivating forces of progress, and the failure of consummerism to properly allocate resources. The potential of pervasive innovations, and the social consequences of a few recent developments (auto, air travel, and television) were used to further strengthen the warning tone of his article which concluded that a throw-away society and a complete loss of individuality were inevitable given today's trends.

Pavitt, Keith. "Technology, International Competition, and Economic Growth: Some Lessons and Perspectives." World Politics, Vol. 25 No. 2 (January 1973), pp. 183-205.

Notes that until the political allocation of resources is appropriate (i.e. poor and ecologically minded have money and power) science and corporations will not respond "responsibly;" also notes that corrective actions should lie within rather than between countries, and notes how K-intensive processes of MNCs, and material substitution, work to cheapen value of labor and raw materials in the LDCs.

Approximately six U.N. documents were reviewed; only two, "Channels" and "Issues;" were worthwhile. One other, not read, looks like a good reference for the future; "Guidelines."

Channels: TD/B/AC.11/5

Guidelines: E.72.II.D.19

Issues: TD/B/AC.11/10