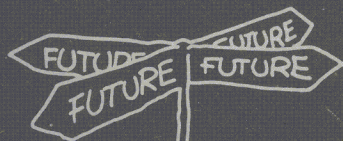


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SOME VISIONS OF THE FUTURE WORLD

A discussion paper by
JOHN ROBINSON



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A discussion paper by

JOHN ROBINSON

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The views expressed in this paper are those of the author and do not necessarily represent the views of the Commission for the Future.

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SOME VISIONS OF THE FUTURE WORLD

I. INTRODUCTION

The material in this report is largely based on a DSIR report on futures research in Europe, and a time spent as consultant with the OECD Interfutures project in Paris. Input then has come from a wide variety of sources, with particular reference to the conclusions of Interfutures documents. The choice of emphasis and the opinions expressed are, however, those of the author; indeed, in many respects the conclusions reached here are contrary to those of Interfutures. A report on the Interfutures analysis, centred on their scenario work, will be presented elsewhere.

This paper reviews a number of world trends which will be of importance to New Zealand in the coming half-century, and contains some analysis which points to the implications of those trends. In the study of systems behaviour it is often found that the most obvious "solution" is indeed a cause of a perceived problem (Jay Forrester's counter-intuitive behaviour) and that a complex system (such as the world) does not behave simply as the sum of its component parts. It is of vital importance therefore to comprehend the assumptions basic to any discussion. Some assumptions common to much futures thinking are questioned in this report. These include:

- the primacy of economic growth,
- the possibility of extensive economic growth in the west,
- the benefits of global cooperation (increasing interactions and common behaviour),
- the workings of a free market economy, and
- the benefits of the operations of transnational corporations.

The aim of this contribution to an understanding of the position of New Zealand in the future world is as follows:

- Where New Zealand can be expected to have no influence on future trends, the international situation provides a background for discussions of future New Zealand options.
- Where New Zealand can have some influence, through participation in international fora, decisions on trade agreements, etc., an understanding of the long-term implications of the New Zealand position will aid the decision-making process.

-- Above all, where there is manifold uncertainty (nowhere more clear than in the possibility of future war), a formulation of the extent of such uncertainty will allow New Zealand to prepare for a variety of possible futures, and hopefully will leave future generations with the ability to deal with future events and to decide their own type of life-style.

It must also be emphasised that the future is yet to be defined (and is indeed being continually re-defined) by decisions yet to be made, by choice from the options offered.

II. ALTERNATIVE VIEWPOINTS AND PARADIGM SHIFT

There is today a dominant paradigm in the West, which is expressed via such bodies as the EEC and OECD, as well as UN agencies. If the consequences of this world view, which developed in the growth period of the 50s and 60s, is perceived to be a determining factor in the present global problematique, then a paradigm shift is necessary and solutions which remain within that paradigm will automatically fail to offer a suitable solution. There is a need to look at alternate life styles, political structures and values systems. As Aurelio Peccei said at the 10th Anniversary meeting of the Club of Rome:

"The yeast of change does exist although scattered in the myriad spontaneous groupings of people springing up here and there, like the antibodies in a sick organism. They are the peace movements, population policy societies, ecologists, women's lib, defenders of minorities, of human rights, of civil liberties, social workers, amnesty apostles, non-violent reformers, conscientious objectors, world federalists, consumer advocates, etc."

The subject of futures research, which has grown so much in recent years, may be divided into two parts, establishment and anti-establishment, each with its particular contribution to make to the debate and to the search for solutions to the problems of the coming decades. Unfortunately one part, the establishment group, has the greater access to facilities and monetary support; whereas the second part, the anti-establishment, produces many of the best ideas - which are only propagated with difficulty.

A central focus of futures research is the development and exploration of a set of scenarios or alternative future paths. The choice of the scenario set and the involvement of the public in the discussion of the implications of the various world views presented, provides bodies such as the Commission for the Future with an opportunity to form a link between the establishment and non-establishment groups, as well as exploring the implications of radical alternatives and country-wide or world-wide paradigm shifts. A continuing process is implied in which:

- a set of scenarios is defined, based in part on the expressed wishes and values systems of the public, in part by the particular understanding of present trends and system behaviour of the secretariat;

- the scenarios are refined and developed, with inputs from a variety of experts, and with the aid of computer modelling to provide an overall check on numerical factors;
- the scenarios are presented to the public for their consideration, and for as wide a debate as possible, and
- based on the experience gained and the opinions expressed, a new set of scenarios is developed.

Each phase of this repeating process can be expected to take about 3-4 years.

Although it is widely appreciated that a set of values is central to all futures visions, and that the public has a role to play in defining the options to be considered, no such process appears to have been followed elsewhere, and the work of the Commission for the Future could be of great significance in this respect. One can perceive the danger here; that the Commission may voice some radical alternatives, that these may be seen as a threat to government, and that the Commission may be forced into a strictly establishment role. After all, one extreme definition of futures research is: "planning is the way for those who presently hold power to project their continuation in power over the periods of years ahead". It is to be hoped that the role of the Commission will continue to be that of stimulating a wide debate and of opening up options, and that Government will continue to support the Commission in that role when the Commission presents scenarios which differ markedly from present government policy.

III. WAR, TRANSNATIONAL CORPORATIONS, THE WORLD MONETARY SYSTEM

Some choice of topic is inevitable, and judgement must be applied to this end. In this section brief notes are given concerning three topics which are all too often ignored in futures work. These are: the possibility of war, the growth and role of transnational corporations, and the growth and potential instability of the international money market. The bias which so often chooses to leave these questions out of serious consideration, to not give them the importance which they deserve, is typical of establishment groups; and is an illustration of the influence conferred by the control of funds which was noted in the previous chapter. After all, it is largely groups outside of the centres of power (some of them listed by Peccei above) which raise the questions of the possibility of war (with implications for alliances and control of the military-industrial complex), of the dangers inherent in the unrestrained growth of the power of transnational corporations (that decisions affecting our present and future lives are passing out of our hands), and of the rapid growth of international capital (which, being uncontrolled, carries with it the possibility of a collapse).

1. War

The steady improvement of armaments is continuing under the umbrella of the SALT agreements, and international arms trade is "business as usual". Past human behaviour indicates a propensity to use arms when they are available, and for war to begin either because of the unbalanced attitudes of individuals or nations, or because of the drift of a situation which no-one is able to control. It is not possible to make any dependable estimate of the probability of large-scale war in the coming decades, but Delphi exercises and the work of the Rand corporation produce estimates that range somewhere around 50% for the next 30 years - i.e., generally between 20% and 70%. From this it may be included, at the least, that war is seen by many people as a distinct possibility.

Two scales of warfare will be briefly considered - an all-out nuclear holocaust or world war III, and a local conflict.

In the past a nuclear war has been seen as a possible outcome of East-West, predominantly USSR-USA, tensions. With the increase of detente and the shock of the Cuba missile crisis, as well as the end of USA involvement in Indo-China, conflict between these two superpowers appears to have lessened - although the emergence of new conflict situations is

not only possible, but indeed probable. A new factor to be taken into account is the emergence of China as a third nuclear world power. Some analysts see an increased possibility of conflicts as the number of actors increases (including the possibility of a pre-emptive strike if one nation feels the other two to be moving towards a threatening alliance). Others would see an increase in stability with an increase in system complexity. Although the possibility of a conflict between China and Russia is at times referred to as inevitable, the past experiences of both nations of the ravages of war and their complementary policies point to the opposite conclusion. China has expressed the policy of non-aggression, and would intend to defeat an enemy largely on Chinese soil; Russia wishes to carry out any warfare outside of its territory, but provided that territory is not threatened does not seek war.

The degree of uncertainty regarding an extensive nuclear war needs to be emphasised. The probability of such a conflict is small (I would say very small), but the consequences are enormous. New Zealand must decide whether this is a significant factor in determining its military posture, and whether it wishes to remain aligned to one of the potential actors in this conflict.

It is not difficult to determine the probability of a local conflict, for there are typically several conflicts or near-conflicts in the world at any one time. At the time of writing there is the Vietnamese intervention in Kampuchea, guerilla war in Rhodesia, revolution in Iran, an unresolved conflict situation involving Israel and its neighbours, and tension between Uganda and Tanzania (for example). A number of potential conflicts appear on the horizon and thus some degree of localised warfare is assured for the near future. In order to treat the more distant future, say past the end of this century, it is necessary to consider the basic cause of the majority of today's conflicts. These are principally the fruits of a period of several centuries of colonialism, followed by the neo-colonialism of today. The withdrawal of the former colonial powers and the moves towards self-determination naturally take some time, and some degree of conflict appears necessary before a stable situation can be expected. So long as a people feel themselves to be not master of own destiny, they will see the need for a change, often necessarily a violent change. Thus many of today's conflicts are a result of the ending of a colonial period in world history and of a move towards some degree of national self-determination. Once the transition has been completed,

other causes for conflict may arise, but nevertheless the cause of local conflict in our time is clear.

The questions raised for New Zealand are:

- will any (or which) potential conflicts involve us;
- given the historical perspective, what should be our response; and
- could we join any efforts to minimise conflict, or should we keep out of the affairs of others?

2. Transnational Corporations

Transnational Corporations (TNCs) have grown very much in recent decades, and continue to grow in scope and power. Many countries have seen the dangers as well as the benefits of this development, and discussions have taken place on the role of TNCs at the UN and elsewhere. However, in the West, particularly in the OECD, TNCs are largely accepted; indeed many see the growth of TNCs as a part of a new world order in which national states will play a continually decreasing role. This is seen as beneficial since the emergence of nation states in their modern forms has been accompanied by considerable "birth pains", tensions and wars; and because the present tendencies towards protectionism, which are seen by some as a block to the "proper" workings of that mythical creature, the free market, are dependent on the "artificial" support of national industries.

The emergent world order implied by the development of supranational powers is in direct opposition to the widely-held concept of democracy; which in its many forms implies the eventual control by the people over key facets of their civilisation. The most probable evolution of TNCs, if they are permitted to continue and to consolidate their position as a major actor on the world scene, will be into a form of supra-imperialism increasingly ruled by an international elite belonging to a dynasty or dynasties, and owing no allegiance to any country. Such a pattern of development has occurred throughout history, from medieval Italy to capitalist USA (Ford, Rockefeller, etc.), even in modern Russia; so that Mao Tse Tung preached the need for a continuing cultural revolution to obstruct the rise of such a new ruling class.

A second question which must be considered is that of the ultimate practical effect on individual countries of the activities of TNCs, for they have the capability of:

- shutting down local industries under their control if a more efficient (to their needs) source is available in some other part of their empire;

- influencing political and technical decisions which may have considerable long-term effects;
- by investment decisions, foreclosing options for the future;
- manipulating money markets; and
- manipulating their internal profit structure so as to make use of low tax zones, etc.

A number of OECD countries are centres for TNCs operations, and the growth of TNCs is then seen to be in their national interest. Thus in the OECD Interfutures Chapter II, it is noted that:

"One factor which justifies the progressive abandonment of trade restrictions in the area of high technology goods is that the sale of technology very often implies the development of dependent relationships which, in the long run, strengthens the purveyor's position."

But perhaps New Zealand, as a potential host country, appears on the other side of the equation, and our interests differ from those of some of our larger OECD partners.

The question of control of TNCs within a host country must be approached with some caution, for in the past they have often been able to circumvent restrictions (by setting up local subsidiaries, for example). It may be possible for New Zealand to move the interface between TNCs and local industry to our borders, and to make use of the technological expertise of TNCs while retaining control of all activities within the country. This is no simple matter, raising as it does the question of the appropriateness of the technology supplied, and the place of our own technological developments, as well as questions of control and dependency. There is an urgent need to gather information on the activities of TNCs in New Zealand and throughout the world today, to analyse the trends and changes underway, and to project these developments into the future in order to understand more fully the implications for New Zealand.

As a matter of political philosophy, a central question is whether to accept such enormous companies as independent forces equal to sovereign governments (many with more power and influence than New Zealand) - i.e. as legitimate actors in the overall power structure - or whether their activities must be subservient to the interests of elected governments. Do we wish for some "balance of power" between business, government, etc., or do we want government to be the controlling actor? Should parliament be regulating or ruling?

3. The International Money Market

"The net size of the Euromarket, this offshore pool of dollars, Deutsche Marks, francs and other currencies on deposit with banks outside the country issuing the currency, more than doubled from the equivalent of \$44 billion in 1969 to \$91 billion in 1972.

In the next year, using a wider definition of what constituted the matter, the size was estimated at \$132 billion and within almost three years, doubled again to \$267 billion at mid-1977.

The growth itself has been a major source of controversy. A number of economists argue that the market is simply a house of mirrors whose apparently infinite power of illusion not only feeds world inflation but also breeds instability because the removal of a single reflector could shatter the banks participating in it.

In this case, the illusion is the seemingly endless - and what some economists insist is inflationary - creation of money through mere bookkeeping operations; an initial offshore deposit is lent, redeposited and re-lent, ad infinitum. This is a phenomenon that could not occur in domestic markets, where banks are obliged to keep a portion of all deposits as reserves, in effect limiting this multiplier effect."

- From "Uncontrolled Market a Conflict for Governments"; article in the International Herald Tribune, Paris, December 1977.

These are significant sums. For comparison: total international liquidity was of the order of \$75 billion in 1969, \$260 billion in 1977 (OECD Interfutures Chapter XV).

- Is New Zealand closely tied into this system?
- Can New Zealand insulate itself from the effects of a crash?
- Is the situation as serious as the above quote would suggest, and should New Zealand press for international discussions?

IV. BEHAVIOUR OF A COORDINATED, MORE SIMPLE SYSTEM

Two commonly expressed opinions would have it that many of the problems of today stem from a fast rate of change, and on the increasing complexity of society, both national and international. Both are questioned here, and opposite conclusions are expressed. One immediate area in which the concepts considered have a practical implication is that of international cooperation - there is a choice between an increasingly coordinated system and a system in which a large degree of diversity is intended.

When the opinion is expressed that society is changing at an increasingly rapid pace, care must be taken to analyse what factors are changing, and how those changes compare to the very rapid rates of the recent past. Many measures in fact show that technological change is slowing. Population growth is ceasing in the West, the realisation of the limits to energy availability lead to more modest expectations for the future, industry is no longer expanding as in the past and many countries have difficulty in providing required employment. Western society is not changing rapidly. The major change is indeed a shift from the rapid change and rapid growth of the past decades, to a more stable (and historically normal) situation. We are moving through the final stages of the industrial revolution. The problem is, in fact, the very opposite to that expressed by the rapid change hypothesis. The system which is our society has developed in its present form during, and in response to, a period of extraordinarily rapid change. Naturally that system is not very well adapted to a period of stability, and the needed change is to make that adaption. The system is behaving in a counter-intuitive manner, and the efforts of many politicians and economists to return to the past are counter-productive.

One may ask of the popularity of such works as "Future Shock" whether they are not representative of the reaction of a system or organism under attack, which is to try to protect itself. Major sections of the population automatically turn towards an analysis which leaves their type of society, and their role in society, intact. The claim to be inundated with change is indeed a protection mechanism, which removes the necessity of the real change, to a more normal and stable situation, in which previous solutions to many problems, such as the "trickle-down" theory of improvement in the lives of the poor, are obviously inadequate.

In ecological terms, a natural system is more stable if it is more complex. Increasing the simplicity of a system, increasing the degree of connection between actors or decreasing the number of actors can lead to a greater instability, as all share in common fluctuations and the possibility of resonance phenomena increases. This is increasingly true of the world today; although an opposite trend may be seen in the potential development of a number of regional centres of power. In particular the increased scope of TNCs and the growth of the international money market have made the Western world increasingly into one system, rather than a set of interacting and independent systems. Given the potential instability of the Western system, in its increasingly monolithic form, can New Zealand insulate itself from a systems breakdown?

A warning must be expressed of the over-simplistic use of the concept of "cooperation". No one can reasonably argue against cooperation. Yet two distinct types of cooperation can be identified:

- the joining in a central structure, and
- the interaction of a number of largely independent actors.

The present note points to the danger of the first approach (towards world government) and the advantages of the second (seeing the benefits of an often chaotic but diverse UN system).

The choice has been presented before in a variety of forms. There is, for example, the divergence between the central planning of the USSR and the decentralised Chinese commune system. Freedom of local initiative can be a part of both capitalist and communist systems; here such a freedom is supported from a systems point of view.

One central reality of the free enterprise system needs to be noted in this regard. This is the propensity for big companies to grow, to dominate, to become monopolistic. A control of this behaviour is necessary to guarantee a continuation of diversity and to protect and encourage the small-scale industry implied by the need for local control.

V. THE LIMITS TO GROWTH

It is all too often said that the problems of the coming decades (in food supplies, energy, etc.) are not in the amount of resources available but in their distribution. Such comments are often used to imply that the limiting factors discussed in such studies as "The Limits to Growth" do not exist, and can be ignored. Yet such statements are in fact in complete agreement with the limits analysis, which indicates local shortages for some time, and global shortages appearing in the opening decades of the next century. Any long-term analysis must keep the possibility of eventual world-wide shortages in view, for the essential aim of futures research is to expand our time horizons to include the long-term effects of present actions.

Any analysis must of course refer to the real world as it exists today, and as it can be expected to exist in the future. Problems of distribution, of management of resources, of politically inspired decisions will continue, and must form part of any realistic future scenario. The possibility of any major supplier (Iran!) being out of action for some time highlights the questions of distribution and availability of resources.

The non-expert is faced with a bewildering variety of estimates, each of which is biased by the values system or beliefs of the person or group presenting the emphasis. Here the reality of control of research project plays some part, for it is often true that major reports will reflect the judgement of one or two key personnel, and that the divergent views of many contributors will be ignored. Thus we can quite properly refer to the Leontief report, the Mesarovic-Pestel model, and to the controlling role of the directors in the OECD Interfutures project. Below are a few comments on the limits debate; the key point is the degree of uncertainty with which we face the future.

1. Energy

New Zealand is in a comparatively favourable situation, and sufficient attention is being given to the supply of energy for the future. The situations of other members of OECD are less favourable; indeed possibly untenable. A gap between the supply and demand of petroleum will occur in the 1985-1990 period (earlier estimates indicated 1984-5, but the slower growth of Western economies has been

accompanied by a slackening of demand) and with it a sharp increase in price. Total output will peak at sometime about the end of the century, or early next century and this, along with an increase in demand from developing nations, will cause further supply problems.

A response within Europe seems lacking. There is talk of replacement by nuclear or coal. Yet

- nuclear energy is increasingly expensive and unpopular,
- the nuclear industry is on the point of collapse,
- legitimate environmental concerns may limit the use of coal,
- a major investment program would be necessary to supply the amount of energy required, and
- the construction of nuclear power plants, in particular, will itself require massive inputs of energy.

Our own position then is reasonably secure, but New Zealand may suffer

- from an increase in the price of imported energy,
- from shock wave effects from OECD partners, and
- from a potential struggle over remaining supplies.

2. Mineral Resources

Estimates of the reserves of many mineral resources indicate the possibility of shortages before the end of the century. Yet new discoveries (following increased exploration), improved technology, and the mining of lower grades of ore could improve the situation. In the past the mixing of lower grades of ore has often been possible because of vastly increased inputs of cheap energy. There are obvious limits to this process in the future and unfortunately many studies of resource estimates do not include a full consideration of energy requirements.

Following a study of available estimates, both optimistic and pessimistic, the major impression is one of confusion and uncertainty. For example, do the TNCs really know of vast new resources, as many think?

It may be preferable to take only the impression of uncertainty from the world picture, and to concentrate on the needs and resources of New Zealand. We may then hope to work with reliable estimates, and to formulate a reasonably complete analysis of future possibilities.

3. Food and Population

The concepts of maximum and optimal population (as defined in terms of food availability) must be clearly distinguished. An optimal population may, for example, require:

- a high standard of living for all,
- some degree of surplus to allow for natural disasters,
- protection of the natural environment, including wilderness areas, and
- the ability of each area to be largely self-sufficient and able to pay for required imports.

The present world does not satisfy any of these requirements, and it appears unlikely that they will be satisfied in the next 20-30 years. Estimates of maximum population are based on

- a minimal level of nutrition for all, e.g. maximum grain production, with little variety possible, and
- maximum use of land.

Factors which need to be taken into account in making any estimate of either optimal or maximum population are both positive and negative, and include the following:

- increasing technological efficiency,
- increase in area under production,
- increased use of fertiliser,
- increased irrigation,
- the possibility of major changes in weather patterns,
- a system which can be sustained for some centuries,
- continuing desertification, and the threat of the ruin of substantial areas as the increasing population denudes the land for firewood, and subsequent flooding affects downstream areas, and
- the possibility of some ecodisaster, such as a disease affecting all green evolution crops, spoilation of land by artificial fertilisers, or dust bowl conditions following overproduction.

An overview of the very divergent estimates pressed by optimists and pessimists, ignoring the very extreme views at either end of the scale which appear unreasonable or impractical to the author, leads to the following conclusions:

- The range of optimal population is 3 - 7 billion. Note of course that any lower population will also satisfy the above criteria.
- The range of maximum population is 7 - 15 billion. Note that the top of the scale implies a doubling of both land area and productivity.

The world population is now about 4 billion and may pass 6 billion by the end of the century. A minimum stable population appears to be about 12 billion, to be reached in the second half of next century. (Note: unexpected but possible decreases in fertility could lower this value.)

The conclusions from the above are as follows:

- There will be a distinct possibility of major food shortages in the future. This is a "surprise-free" projection, implying a simple continuation of the status quo (Sahel, etc.).
- Major efforts to improve the self-sufficiency of all parts of the world, and to stabilise world populations must continue.
- Stockpiling of food and provision of financial assistance to poorer hungry nations must continue.

The preferred sustainable world population will be passed, and many countries may decide that a reduction in population is required. Such decisions are for the future; for the moment the aim must be to reduce population growth as quickly as possible, and to feed the existing population as well and safely as possible.

VI. THE DEVELOPED WORLD

During the 1970s the advanced industrial countries (AICs) have experienced a time of reduced economic growth. In historical terms this period may be analysed in four very divergent ways.

- This is a short-term recession, and will be followed by a return to the rapid economic growth pattern of the 50s and 60s once appropriate (!) steps are taken.
- This is a downturn in a normal long-term Kondratieff cycle (period 50-60 years). The cycle is due to market mechanisms, and has been generated using computer models. An upturn might then be expected during the 1980s.
- The upturns in Kondratieff cycles are hypothesised to be dependent on the utilisation of scientific and technological advances rather than on the working of the market.
- This is a final phase in the industrial revolution, leading to a more permanent new civilisation. Various forms of post-industrial society have been explored.

If the true situation is some combination of the first two possibilities, the efforts of many economists to return to the past, to a reynamped free enterprise system of neo-classical economies may be justified. If, however, the reality is closer to the last two possibilities, such an approach is counter-productive.

In the view of the author we are moving into the last phase of the industrial revolution. Although technological change has overall slowed, the recent and dramatic development of microprocessors and cheap computers represents an important step in the evolution of modern civilisation. For the provision of basic material human needs:

- few farmers are needed,
- progressively fewer industrial workers are needed, and
- soon fewer service and control staff will be required.

There may be some need to retrench in energy-intensive industries, but a broad picture of a future (post-industrial) society is emerging. The economic and political organisation required will differ from that which has evolved in response to the demands of the past - the growth, transitional phase.

Particular attention needs to be paid to the role of the State in this future world. If (say) one-half of the working population are providing the necessities of life, the role of redistribution of income

to the total population will become of increasing importance. Present attempts to limit or diminish the activities of the State may be counter-productive, leading only to unemployment and economic recession. The question is not a new one, but may gain in importance in the future.

The future of the economics profession to come to terms with the changing world may lead us to chose solutions which will indeed aggravate the situation. It is time to respond to the challenge of an exciting period in human development, the satisfaction of so many basic human needs - an incredible achievement, a success without parallel - rather than to yearn for a past which has been simply a move towards that successful conclusion.

Immediate problems concerning the spread of industrialisation to other parts of the world - so that cheap wages turn the comparative advantage against the AICs will be mentioned in the next chapter.

VII. THE DEVELOPING WORLD

Two visions implying alternatively fragmentation and increased alignment of the less-developed countries (LDCs) will be outlined.

1. Fragmentation

As industrialisation continues in the third world, the more successful LDCs will become in effect AICs and will align themselves with the wealthier nations. Within many LDCs the ruling elite, which concerns itself more with the demands of the top 10% of the population than with satisfaction of basic needs of the masses, will remain in power. A rapid industrialisation and modernisation will place many present LDCs in a position of comparative advantage over AICs. This raises the danger of world-wide overproductive capacity in some areas, and also the capture by LDCs of markets at present dominated by Western AICs, as they gain an advantage due to lower wages and the use of more modern techniques. The potential of the ASEAN group must be of particular concern to New Zealand and Australia in this respect.

Meanwhile many poor LDCs can be expected to remain poor for some time to come. In this respect it is interesting to note the success of concentrated aid programmes of the past, such as the Marshall Plan in Europe and the extensive aid to South Korea and Taiwan. It appears that aid of the order of \$30 (1975 US \$) per capita per year can have a considerable effect, while aid of the order of \$1 - 6 can continue for many years with little effect. It may be noted in this respect that much global computer modelling does not take account of the dynamic effects of carefully organised large-scale aid projects, and thus that aid programmes aimed at giving extensive help to the poorer countries may improve their economies more than expected from the model projections.

However, the picture remains one of fragmentation, with the more successful LDCs becoming part of the developed world, and the poorer LDCs continuing to have difficulty in moving past the take-off point. The more powerful AICs continue to exercise considerable spheres of influence.

2. Non-alignment of LDCs

The second vision explores the possibility of increased cooperation among the non-aligned nations, with emphasis on third world self-reliance and a loosening of ties with the West. This implies a continuation and strengthening of links among LDCs, as the aims of recent

meetings of non-aligned countries are put into effect. Examples are setting up of regional multinational corporations, intensifying exchange of technology, experience and knowledge over a wide spectrum in an "Action Programme on Economic Cooperation" (Belgrade Conference), developed further at the Technical Development among Developing Countries Conference in Buenos Aires (both in 1978). In this vision the wealthier non-aligned nations will see themselves as part of a continuing third world, or as part of regional groupings, and will act to increase trade with their poorer neighbours rather than with the West. The form of such a development may depend strongly on the attitude and policies of Western nations; the choice is to continue to resist such developments, or to cooperate and assist.

The possibility that the world will become a set of interlocking "common markets" (East Africa, West Africa, ASEAN, EEC, USA, USSR, China, etc.) with each region attempting first to satisfy its own needs in a self-reliant manner before trading for other goods, and with a reduction in the spheres of influence of the major powers, has some attraction. However, there are dangers for the AICs as the non-aligned group gains greater control over its own resources, as well as benefits - limited global trade may reduce marginal efficiency in some areas, but will ensure the continuation of basic industries in each region.

The Islamic revolution in Iran illustrates the manner in which an analysis based on long-term trends can rapidly become out of date, as events move more quickly than anticipated. The possibility that crises may occur sooner rather than later than suggested by "doomsday" modelling (the oil crisis and starvation in the Sahel so soon after the appearance of "The Limits to Growth"), being early warnings of more global crises (which may, with proper adjustments, often be avoided), must not be neglected. In the case of Iran the possible resurgence of an extensive Islam world, which was hypothesised by futurists one or two years ago, may be becoming a reality. This Islam world might become one of the "common markets" referred to above. The warnings of the popular novel "The Crash of 79" should not be forgotten as the effects of the overthrow of the Shah of Iran are explored.

The difference between the two visions is as follows. Will the non-aligned movement follow the course which it is charting for itself, or should their statements be recognised as mere rhetoric, masking the true power situation and the goals of the ruling elites? Both visions describe possible developments in the coming decades, and both build on

trends which are visible today. It would be wise for New Zealand to keep both visions in view when developing future strategies.

VIII. THE COMMUNIST WORLD

Developments in the communist world, principally the COMECON group and China will largely parallel those in other parts of the world, and no great changes or surprises are expected. Both blocs will continue to be self-sufficient in many ways, and to trade moderately with the rest of the world. In energy, Eastern Europe although self-sufficient, will have no surplus available for export, while China is already starting to export to Japan. The Chinese reserves are considerable, but whether China will be able to supply Japan with their import requirements towards the end of the century is problematical. Eastern Europe is currently building up an enormous debt towards the West, with little likelihood of easy repayment.

There is much difference of opinion concerning the future spheres of power of the two communist giants, USSR and China. A threat is seen in, for example, the spread of Russian influence in the middle-East and Africa. If the West wishes to avoid direct confrontation, to learn from the mistakes of the past and to support the legitimate interests of the people involved, a policy of support for the non-aligned movement and for regional self-reliant groupings is indicated.

There are considerable differences among the socialist nations in social and economic organisation, and New Zealand could well learn from their experiences, and expand the range of alternatives that we wish to consider for our future development. In particular developments in Yugoslavia and China deserve attention.

Long term loan
Myra Harpham
2011

IX. POWER: CENTRE-PERIPHERY OR SELF-RELIANCE

Questions of political philosophy and of preferred structures are raised by the various visions of future developments around the world. Here we, as one sovereign nation among many, can add our element of choice, as well as adjusting as best we can to developments that are beyond our control.

A theme running through much of the discussion of this document is that of the choice of scale, and of a choice of preferred relationships. One option involves large-scale enterprises, and central control in a centre-periphery pattern. The second option involves a move to small scale, emphasis on self-reliance at all levels and a breakdown of the centre-periphery power structure. The debate has relevance for both internal and external developments.

New Zealand should support and join those forces throughout the world, principally within the non-aligned movement, which are pushing for increased regionalisation and control of resources. Advantages will include:

- decrease in the influence and control of the great powers, a withdrawal of those powers from some spheres of influence, and thus a reduced possibility of conflict,
- a limitation of the powers of transnational corporations, which is most threatening to small and vulnerable nations,
- development of a set of interlocking common markets, with perhaps a set of monetary systems, which would limit the possibility of an overall systems collapse,
- acceptance of all people and all nations as equal; an important step in the dismantling of the old colonial mentality, and
- moves towards formation of a genuine new economic order, with safeguards for trade in primary produce (it is widely recognised that we have much in common with many third world nations in this respect).

At this stage in world history, Keynesian economics after some decades of remarkable success (possibly not dependent on economics at all) is failing to guide the Western world to a recovery from the present economic slump. Many economists are now turning towards the past and to a resurgence of neo-classical economic theory. Emphasis on self-reliance, coupled with the realisation that we may indeed be moving into a new "post-industrial" form of society, may guide economists to broaden their thinking and to develop a theory appropriate to the needs of the future.