

New Strategies for Structuring Society from a Cashflow Paradigm

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by

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THE THIRD WAY:

Socio-Economic Models: Between Capitalism and Socialism

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Alternative Economic Paradigms

" Perhaps it is fair to say that no paradigm is firmly ensconced today. We live in a period in which much of the conventional wisdom of the past has been tried and found wanting. Economics is in a state of self-scrutiny, dissatisfied with its established premises, not yet ready to formulate new ones. Indeed, perhaps the search for a new vision of economics, a vision that will highlight new elements of reality and suggest new modes of analysis, is the most pressing economic task of our time."

Heilbronner, Robert L. & Thurlow, Lester C. *The Economic Problem*, Chapter 3, page 44, 7th edition, Prentice Hall, 1984.

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OUTLINE

1. All economic development must, by definition, be self-financing so no long term external finance is required by any community, region or nation, provided that they possess appropriate financial institutions - as existed in Japan and the U.S.A. at the turn of the century.
2. The building of appropriate self-financing institutions in communities should be the first priority of all development aid. Any other type of aid will be less efficacious, generate dependency and could be counter productive.
3. Self-financing development requires the ability of communities to create their own type of money and credit and so is dependent upon either, central banks adopting selective monetary policies and/or allowing 'free banking' as existed in Japan and the U.S.A. until early this century.
4. The effectiveness of any self-financing development strategy is depended upon minimising the export of value from the external ownership of land, enterprises and credit.
5. The export of value from any community is minimised by introducing time limited property rights to attract investment without providing investors with cashflows for a time period in excess of that required to provide them with the incentive to invest. Ie. without creating surplus incentive, described as *surplus profit*.
6. The introduction of *dynamic stakeholder tenure* with time limited rights to land (Figures 13 & 14 in Appendix II) and enterprises (Figure 5) is suggested as a means for improving economic efficiency, equity, social accountability, self-governance and environmental sustainability.
7. *Dynamic stakeholder tenure* creates a **Third Way** (Figure 12) to distribute income other than through work or welfare and so it provides a method to privatise the tax and welfare system on a basis that also furthers local ownership and control.
8. The type of economic development that is best suited for sustaining the host environment and meets the needs of the local people is best determined locally. Dynamic stakeholder property rights and decentralised currencies are proposed as a means for introducing local ownership and control of land, enterprise and credit.
9. Economic analysis can become misleading and counter productive because some words and concepts can be used ambiguously (eg. capital) and/or have little relevance to the operations of social processes. New words are required to describe new concepts. New concepts are introduced which create an alternative theory of economic growth based on the *cashflow paradigm* used in commerce as outlined in Table 1. Alternative assumptions of human behaviour are also used as outlined in Table 2.
10. A special class of productive asset described as *procreative* are identified as the only way nature can be made to yield her resources more abundantly without humans working harder or longer. Only *procreative assets* create surplus values and these assets represent the self-financing engines of economic development.
11. Economic activities represent only a small proportion of all social transactions but economists mainly confine their analysis to monetary activities concerned with the production and exchange of goods and services. In industrial societies, the values involved in the transformation and exchange of property rights may be far larger (Figures 1 & 7). The cashflow paradigm provides a basis for integrating and analysing all economic transactions in society.
 12. The cashflow paradigm is presented as a basis to analyse the theory and practice of:
 - (a) Self-financing development and the creation of *surplus values* arising from *procreative assets*, rather than from labour, as proposed by Marx.
 - (b) Decentralised *free banking* and the use of negative interest rate currencies.
 - (c) Surplus profits, which are the cash flows obtained after the investor's time horizon.
 - (d) Windfall gains and wipeouts from property rights created by changes in demand.

- (e) Limited life firms and equities which are found in commerce worldwide.
- (f) Dynamic property rights as are found in squatter settlements, family corporations, pension entitlements and Employee Stock Ownership Plans (ESOP's), etc.
- (g) Designing economic institutions and their social ecology based on cybernetics.
- (h) Integrating economic transactions with ecological and social transactions.
- (i) The role of economic transactions in a theory of social construction.

13. Four types of social information and control systems (sensory, semiotic, command and market as described in Table 5) are suggested as a basis for developing a theory of social construction. The four systems are used to compare ancient and modern societies and for designing the political, social and economic structures which are normally accepted as a given rather than a variable.

14. The advantages and disadvantages of each of the four integrative mechanisms in Table 5 provide guide -lines for designing social institutions so a mix can be formulated to minimise the disadvantages and maximise the benefits of each mechanism.

15. A cybernetic basis is used for evaluating the various structures found in socialism, capitalism and enterprises around Mondragon. These structures are compared with the proposed dynamic stakeholder tenure system based on time limited, co-ownership rights. It is suggested that the current static, perpetual, monopoly rights create inefficiency, wealth concentration and the exploitation of nature.

16. To create a self-regulating sustainable social ecology, the structure of social institutions needs to become far more dynamic and integrated into the host environment. To meet this objective, the structure of money, governance and property rights needs to be dynamic and defined in terms of things found in nature and society.

17. The World Bank should change its role from distributing credit to educating communities on how to build and manage their own local banking and currency systems based on ecological principles. International treaties that recognised time limits to patents should be extended to corporations and realty to create a **Third Way** (Figure 12 and Tables 7 & 8). Table 8 shows that past changes have been more radical.

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"To discover how scientific revolutions are effected, we shall therefore have to examine not only the impact of nature and of logic, but also the techniques of persuasive argumentation effective within the quite special groups that constitute the community of scientists".

Thomas S. Kuhn, - *The Structure of Scientific Revolutions*

1. Introduction

One of the objectives of this paper is to compare the methods of economic analysis used by business people and economists. Commercial analysis is based on cashflows while economic analysis is based on profit. Some of the differences between the two approaches are set out in Table 1, Differences Between Paradigms and Table 2, Differences Between "Economic" and Real People. From Table 1 it will be noted that the cashflow method extends the features of the profit paradigm and in other areas it replaces them as it does for all points in Table 2. In other words, the profit paradigm is no more a special case of the cashflow approach than Newtonian Laws of motion are a special case of Relativity Theory. However, like Newtonian mechanics, the profit paradigm can provide useful results in many circumstances.

Kuhn₁ describes the introduction of new paradigms as "extraordinary science" to distinguish it from "normal science". In recognition of this distinction, this paper has not been written in the style normally accepted for scientific contributions. One justification for this approach is based on Kuhn's observation of the extraordinary difficulty in getting a new paradigm accepted. Another reason is that the paper needs to be written for people who are not economists or even scientists. Kuhn notes that it is the scientists who are most affected that will most resist changes in their basic beliefs. If we are to be influential in shifting paradigms, the arguments need to be accessible to a wider spectrum of society.

Kuhn states that "The decision to reject one paradigm is always simultaneously the decision to accept another, and the judgment leading to that decision involves the comparison of both paradigms with nature and with each other". It is to assist with such comparison that Tables 1 and 2 have been prepared. Every reader will have to make her/his own comparison of both paradigms and how each paradigm compares with nature. Kuhn sees that it is the role of normal science to assess such comparisons.

To assist social scientists to identify how the cashflow paradigm might be tested against reality, it may be useful to describe my own experience of the workings of the economic world. As there are more commercial practitioners in the world than economists, I am sure that there are more people in the world who share my beliefs of how the economic world works than there are economists. However, a major problem is that most of the commercial practitioners are not aware of how the world of the economist is different! This was my own experience as described below. As J.M. Keynes₂ observed, "Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist".

2. Origins of articulating the cashflow paradigm

I thought that I had become assimilated into the belief system of economists when I undertook *Advanced Economic Analysis* and *International Economic Relations* as electives for my MBA degree at Harvard University during 1962. This was a time when there was great confidence in economics. My major research project was to construct a ten-year forecast of the U.S. economy. At that time money was defined in terms of gold, exchange rates were fixed, inflation was low and economic growth occurred in well-understood business cycles. A Harvard man called John Kennedy was the President of the U.S.A. and he had promised to get men on the moon in ten years. Like many of my Harvard colleagues I graduated in 1963 with abundant confidence that I understood the workings of the economic world.

Furthermore, I had obtained work experience during the summer of 1962 in the "citadel of capitalism". This was working in the Rockefeller Centre of New York City as financial analyst in the Treasury Department of an affiliate of Standard Oil (N.J.)

Inc., which was then the largest corporation in the world. The insights obtained from this experience into how large corporations make investment decisions became pivotal in the formulation of an alternative paradigm eleven years later.

My work experience supported the conclusions of another subject that I studied during my final year at Harvard on *Decision-Making Under Uncertainty*³. This subject showed how and why the risk of an investment losing money could overshadow the benefit of making a profit so that the size of any prospective profit became irrelevant in making the decision to invest. This situation is not recognised in the profit paradigm of economist who assumes that the rate of return for risk is the only criterion for resource allocation. Take for example, a bet decided on the toss of coin. Many people will accept a bet to lose or win one dollar when the odds are 50/50 but refuse such a bet when its value is increased to represent the value of their home. Most individuals are not prepared to risk losing their home to obtain the value of two homes. The decision to accept the risk of the bet has changed even though **the size of the profit and the risks of obtaining it have not changed.**

My confidence in understanding how the commercial world worked was reinforced over the following years from diverse practical experiences. While still at Harvard, I set up my own management and investment consulting business and used this as a basis to establish for myself, and/or for others, a number of new ventures in Australia. This provided experience in designing, building and managing new business enterprises. Some of the ventures I created later became listed on the stock exchange.

As a founding member of a corporate raiding syndicate I also became a director of a number of publicly traded companies in which we acquired control. I became responsible for turning two of these around as their chief executive. My experiences as a corporate raider, investment banker and property developer also resulted in the development of a number of innovative financial and ownership structures. I had established a proven ability to manipulate the economic system to produce unconscionable profits. Being a member of a political family, I began developing economic policy initiatives for making the economy more equitable and efficient.

By 1972, I realised that some of proposals, which I had been working on, would create a new type of economic system. So in 1973 I presented my first paper to professional economists at the 44th Annual Conference of the Australian and New Zealand Association for the Advancement of Science (ANZAAS). While the paper, Time Limited Corporations, was also accepted for publication⁴ it produced only polite interest because of its novelty. I could not generate any interest on how the general adoption of the proposal could make the economic system more equitable and efficient. I was puzzled why professional economists could not see the big picture (macro) implications, as I thought that this was their main area of concern. I then spent the rest of my time at the conference trying to discover why economists could not share my insights.

My concern was reinforced and partly explained by a paper given by Alex Wearing, Professor of Psychology at the University of Melbourne. His paper Growth as an Imperative presented in a Symposium on *Economic Growth: Magnificent Obsession* contained an earlier version of Table 2. Table 2 identifies how the assumptions made by economists on the behaviour of people are quite different from the understanding of psychologists. It raised the question if economists might also misunderstand the behaviour of business people and how the contemporary commercial world operates.

Table 2 providing a basis for questioning the fundamental assumptions of economists and a model to develop Table 1. The realisation of why economists could not understand the macro implications of my paper began to emerge after I attended a paper presented at the ANZAAS conference in 1973 by a mainstream economist, Michael Parkin, on Portfolio behaviour choices between real and financial assets. From the discussion on the difficulty of obtaining reliable information on the value of real and financial assets in an economy it became evident that economists do not usually keep balance sheets. This blind spot also provided an explanation of a number of other shortcomings in economic analysis.

3. National Accounts do not contain a balance sheet.

As a businessman I found it difficult to accept that economists did not routinely keep track of the value and distribution of the assets and liabilities in a nation, state or community. All corporations are required by law to prepare a balance sheet which lists all their assets and liabilities. The excess of assets over liabilities is called shareholders' equity or net worth and it indicates the value of a business. The success or failure in managing a business is determined by how the net worth increases or decreases respectively over time.

When an enterprise has liabilities in excess of its assets it is defined by law to be an insolvent business. The directors of a limited liability company become personally liable for the debts of the enterprise if they continue trading when their company is insolvent. This forces company director's to take careful note of the information provided in the balance sheet of their corporations. For a corporation or individual to borrow money, the presentation of a statement of assets and liabilities is a fundamental condition for obtaining a loan.

Business accounts also contain a statement of income and expense which is described as a Profit and Loss Statement. The profit or loss indicated in this statement increases/decreases the net worth of the business. The profit/loss arises from the production and/or exchange of goods and services by the business entity (refer to area 1 of Table 1). This in turn increases/decreases the value of the business.

However, the net worth of a business can also change from the exchange and transformation of assets and liabilities as noted in the last column of line 1 of Table 1. These changes can often be greater than the current year's profit or loss.

Transformation and exchange of assets and liabilities involves changing the nature of property rights/obligations or bartering such rights (eg. corporate take-overs financed by stock swaps). It could also involve attaching contingent rights to deal in property such a lien to secure a borrowing or put and call options, etc. Such activities are the tools of trade of investment bankers, corporate raiders and property developers.

In advanced market economies, the value of assets and liabilities traded each year on their stock exchanges, futures exchanges, bank bill markets, money markets, bond markets, mortgage exchanges and real-estate sales can exceed the value of goods and services produced by a substantial degree. In active periods of the business cycle, the value of assets and liabilities traded can be around five times greater than the National Income as indicated in [Figure 1. Holistic Economics](#).

The National Accounts constructed by economists concern themselves only with the income and expenses of a nation, not its assets and liabilities. Economists' do, however, try to estimate the volume of money in the economy and so this is shown as part of the Profit Paradigm in Figure 1. The volume of money may be only around 20% of total annual income and expenses (GNP) in the economy as indicated in the illustration. However, Figure 1 indicates that the value of GNP transactions may represent only a minor proportion of transactions involving the exchange and transformation of assets and liabilities. It is these latter transactions which are omitted from the National Accounts and so by the government in formulating monetary policy⁵. This omission is just incomprehensible to business people.

A balance sheet provides the most crucial information for business people. They find it inconceivable that a statement of assets and liabilities is not also a fundamental requirement for economists. Indeed, I have great difficulty explaining this state of affairs to my business colleagues. I point out to them that economists because of this blind spot of economic analysis did not anticipate the Third World Debt problem. Practical bankers discovered the problem in the early 1980's when they tried to collect some of their Sovereign loans.

Because the ownership of assets and liabilities is omitted from National Accounts there is no basis for analysing the ownership and so sovereignty of income cashflows, which are included in the accounts. In some countries, with a large proportion of foreign ownership, a significant amount of national income may accrue to foreigners. So while the Gross National Product of a country may increase, the average income accruing to each resident could decrease. In this situation, a country can report economic growth and an increase in the standard of living while its population gets poorer!

On a regional basis, this blind spot of economic analysis may explain why many resource rich communities in market economies are cash poor. External ownership of natural resources, property and housing finance institutions means that the cash retained in the community may be only a fraction of the value of production/income generated by the community. For this reason, no initiative to revitalise a community should be undertaken without first ascertaining the pattern of ownership and control of its land, buildings, enterprises and financial system. This is discussed further in section 14.

4. The problem of language

Words are the tools of thinking. If we use the wrong words we will get the wrong answers. If we use words in an ambiguous way it is difficult to arrive at the same conclusions even when the facts are the same. A particular problem arises when a word used by economic specialists can have a different meaning from that used by the general public. "National Accounts" is an example. As a balance sheet is an intrinsic part of any business accounts, business people would automatically assume that the National Accounts of a country would also contain a statement of assets and liabilities.

Words are also used to describe our perceptions of reality. When the way in which the world works changes, we also need to change the words used to describe it operations. The way in which the world works will change with changes in its economic institutions. Such changes can affect the meaning of fundamental economic concepts such as wealth, capital and money as will be discussed later. Because of this, economic propositions, which can be shown to be logically consistent, may have little relevance because the concepts described by the words do not represent the new reality.

Changes in technology and the institutional structure of modern market economies may explain why economics has a blind

spot in regards to the transformation and exchange of assets and liabilities recorded in balance sheets. In the days of Adam Smith, at the dawn of the industrial revolution, private property was mainly inherited and rarely traded. The exchange and transformation of assets and liabilities would have been rare and so insignificant to general economic activity. The emergence of negotiable property rights with significant values was not just dependent upon a change from a feudal to a market economy but also on the development of technology with the industrial revolution.

Just as Newtonian mechanics provides satisfactory answers when velocities approaching the speed of light are not involved, so can the profit paradigm, limited to the study of the production and exchange of goods and services, provide many useful answers when the transformation and exchange of assets and liabilities in an economy are not significant. This situation not only exists in pre-industrial societies but in market economies where all property is owned by the state and/or a small minority of individuals. The prevalence of this situation provides a basis for supporting the current paradigm. But as private ownership becomes more broadly held through privatisation and other expanded ownership initiatives⁶, the relevance of the current paradigm will diminish.

The need and means for democratising the distribution of private property rights is largely hidden from economists who do not construct balance sheets and are locked in the profit paradigm limited to concerns about the production and exchange of goods and services. This is why economists could not even see, let alone analyse the proposals in my book, *Democratising The Wealth of Nations*⁷ because the innovations proposed were not based on production and exchange of goods and services but on the transformation and exchange of assets and liabilities. The innovations were not seen to be a concern for economists.

It also explains why economists could not share the passions and thoughts of Louis Kelso (1958, 1961, 1967, 1987), the inventor of Employee Stock Ownership Plans (ESOP's) and the Two Factor Theory. He spent his life promoting the theory and practice of democratising the ownership of productive assets and fighting against the lack of interest and even ridicule of economists. For economists to fully appreciate Kelso's work, they would have to accept the cashflow paradigm of commercial practitioners. If we are to believe Kuhn⁸, then this revolution in economic thought is needed before economists take up a serious interest in democratising the wealth/assets of nations to create a basis for building a sustainable society.

The development and spread of technology and negotiable property rights to both technology and real estate is one of the more obvious ways in which the real world has changed since the science of economics was founded by Adam Smith in the eighteenth century. There are a number of other ways in which operations of the economic world have also changed which have not been reflected in currently accepted economic concepts or the language in which they are expressed. The most subtle, insidious and influential are our assumptions on how money affects the operations of the economy. There have been profound changes in the structure of money and banking institutions over the last century. But economic theories, concepts and policies have not changed to take these transformations into account. It will be argued in sections 10 and 11 that the structure of money and banking both need to be re-designed.

There are other words such as "wealth" and "capital" which are fundamental to any basic understanding of economics, which are used ambiguously by both economists and the general public. Such ambiguity may explain why there can be so many disagreements and confusion in economic analysis by professional economists and their clients in politics, government and business.

To avoid ambiguities and provide the intellectual tools⁹ for describing and processing new concepts, new words are required. A lexicon of the cashflow paradigm is presented in Appendix I. The ambiguity in the meaning of the word "wealth" can be accepted in the cashflow paradigm because income is a cashflow and negotiable private assets as reported in a balance sheet that can be used to generate a cashflow. However, the word "capital" is not used. Instead, appropriate other words are used such as *money* (Investment Capital), *equity* (Business risk capital), *financial credits* (Borrowed Capital), *foreign financial credits* (Foreign Capital), *capture of foreign credits* (foreign capital inflow) *income producing assets* (Real Capital), *know how* (intellectual capital) and other types of assets which can not be measured and so analysed with the language of the profit paradigm. Some of these categories are illustrated in [Figure 2. The Nature of Wealth](#) and all categories are listed in Appendix I.

A pivotal contribution of the cashflow paradigm in describing business activities is the related concepts of PROCREATIVE ASSETS, SURPLUS VALUE, CONFLUENT DEVELOPMENT and SURPLUS PROFITS. The ability of the cashflow paradigm to compete with the existing belief system of economists will depend upon how useful these micro economic concepts turn out to be for others in understanding, designing and/or managing the macro economy.

5. The Generation of Wealth

Man-made assets which produce goods and services with more value than the asset costs to build and operate provide a basis for **generating** wealth as distinct from **capturing** wealth which can be achieved from the exchange and transformation of assets and liabilities. Assets, which generate wealth, will be described as being *procreative*. To quote Moulton (1935)¹⁰ "We are interested in the processes by which society expands its power to make nature yields its resources more abundantly; and from this point of view we are concerned with procreative property".

Procreative assets are the engines of economic growth and development. An intrinsic feature of all procreative assets is that they must be self-financing in the sense that they generate economic values equal to at least the cost of their construction and operation. The time taken for a procreative asset to pay back all its construction and operating costs is described as the payback period. Interest costs would be included in determining the commercial payback period. However, it may not be appropriate to include interest costs for an economic analysis unless *neutral money* is in circulation as discussed in section 10. The most important social feature of procreative assets is that any person who can obtain access to credit during their payback period can own them. This provides the basis for creating a Third Way as discussed in section 14 and illustrated in Figure 12, Distribution of Wealth.

Procreative assets can be tools, machines, structures and organisations, which over their operating lifetime, produce goods and/or services with a value greater than the cost of creating or acquiring the asset and the cost of its operations, excluding tax and interest charges which represent direct transfer payments. A procreative asset is one which generates cashflows greater than zero as set out in area 6 of Table I;

The additional value generated over all costs over the life of the asset will be described as SURPLUS VALUE. Surplus value represents the value of the increased output from productivity improvements. Procreative assets provide the **only** way to increase productivity without humans working harder or longer hours. Because surplus value can be measured only over the useful life of an asset, it is different from the Marxist concept which is based on accounting profits, which Marx viewed as being created by people rather than by assets. However, the cashflow concept of surplus value is similar in the sense that it "is the source of capitalist profit"¹¹.

Surplus value in the cashflow paradigm could be described as a "free lunch", an outcome denied by many. However, economists such as W.W. Rostow¹² have estimated that in the 200 years after the American Revolution (1776) the volume of manufactured goods in the U.S.A. increased seventeen hundred times. This did not occur from people working with more effort or through working longer hours. Indeed, over the period the average working hours per week was almost halved. So the increase in output per working hour must have been well in excess of 1700%. The increase was not created by people working harder but by procreative assets. History proves that there are such things as free lunches and moreover, that they can be very substantial.

This is why I describe procreative assets as the engines of economic growth. It is only by generating surplus values that the standard of living can be increased without people working harder or for longer hours. The words 'capital' 'real capital', 'income producing assets' or 'produced means of production' as used by economists may describe procreative assets but they could also describe assets, which use up/absorb economic values. All man made assets, which are not procreative, could be described as being DEGENERATIVE.

There are many types of degenerate assets. A common feature is that they all consume more economic value than they create. Many degenerative assets are consumer durables, which improve the quality of life and/or the standard of living. This class of degenerate asset I will refer to as CONSUMPTION assets. Consumer durables **represent** an improved quality of life/standard of living, but they do not **generate** it.

Some consumption assets may even produce income but not sufficient to make them self-financing from their operations and so add value to society. A home may provide an example in this regard. In the profit paradigm, the value of the "service" provided by a house may be recognised in the form of an imputed rent. While there is no agreement on this approach, it is my belief that the practice of economists to impute such values will obscure an understanding of practical economic processes.

Let us compare the different social results from owning a procreative asset such as a truck and a house costing the same value. The truck will pay for itself and the cost of a hired driver over a period of typically five years and then generate income over its useful life to keep its owner. The owner of a house may have to rent her/his services to drive a truck for thirty years to keep her/his house. The difference is that a procreative asset liberates the owner from work while the degenerate assets enslave the owner into working (unless she/he also owns income-producing assets). If we are interested in improving the quality of life of society then we need to know the implications of owning various types of assets. This possibility is denied by the profit paradigm, which assumes that ownership does not matter¹³.

It does not matter how many billions of dollars a procreative asset may cost, it must by definition be self-financing. As I found out working for Standard Oil in 1962, no ship, oil refinery, fertiliser plant, marketing facility or project ever took longer than ten years to become self-financing and mostly it was less than half this time. We must conclude that any individual can own a procreative asset such as a jumbo jet, factory or business, no matter what it costs, provided that the individual can obtain access to credit for the duration of the pay-back period. Recent multi-billion dollar management buy-outs illustrate this point.

Another important point made by Kelso is that democratising the ownership of liberating "productive capital" (ie. procreative assets) is dependent upon democratising access to credit. This insight provides a basis for identifying new strategies for social advancement. Kelso proposed that access to credit be democratised through the establishment of a Capital Diffusion Insurance Corporation (CDIC)¹⁴. This paper suggests alternative strategies based on introducing dynamic rules for owning all types of assets including paper money that is organised on a decentralised basis.

6. What do economist's mean when they talk about Capital?

Consider the statement by Heilbroner & Thurow¹⁵ in their economic text book *The Economic Problem*, "What is capital? It is wealth that can be used to create still more wealth. The humblest commodities can be capital as well as the most dazzling jewels, as long as they can be sold to gain still more wealth".

The ability to sell an asset to gain wealth/income/cashflow is irrelevant to the definition of procreative assets. To be procreative, the cashflows must arise from the operations of the asset, not by its disposal or contingent sale (transformation of ownership rights) through using it as security for a loan. In addition, many assets such as jewels and commodities are not man-made. Procreative assets increase productivity because of the technology embedded in them when they were made or in the way they are used. Procreative assets represent intelligence and know-how, which allow people to work in a more efficient way rather than harder. It might be said that they contain congealed knowledge or know how. Karl Marx saw surplus value saw as arising from exploited labour, the cashflow paradigm attributes it to the technology imbedded in machines and organisations for which people have already been paid.

Wealth in the form of income might indeed be obtained by the sale of commodities and other assets at a price greater than their cost. But this need not be due to the generation of surplus values. As noted earlier, we need to make a distinction between the generation of wealth through the creation of surplus values as distinct from obtaining increased income and/or net asset value through the manipulation of property rights and obligations. The distinction is vital when we analyse the contribution made to society by paper entrepreneurs, corporate raiders or property and commodity speculators. The accumulation of wealth through the transformation and exchange of property rights and obligations is dependent upon capturing wealth generated or held by others.

In contrast to Heilbroner & Thurow, Samuelson¹⁶ requires capital goods to be man made. He states, "Capital goods, then, represent produced goods that can be used as factor inputs for further production..." However, the irrelevancy of his concept as a means of generating wealth or for even increasing income is illustrated where he states: " It should be pointed out that the government does own a good deal of the national real capital, eg., Hoover Dam and submarines. In addition, its agencies such as the Federal Housing Administration (FHA) and the Small Business Administration (SBA) are important sources of capital loans for home-owners and private business".

The Hoover Dam could well be procreative but submarines would certainly not be. Submarines do not create wealth and they are built to destroy it. To build a submarine, productive capacity and so wealth must be used up. Thus, even if submarines are not used for destructive purposes their creation will absorb wealth and so depress the standard of living. In the above quotation, Samuelson also suggests that loans are capital. This is another reason why the word capital is unacceptable for rigorous analysis of wealth generation.

The reason why economists describe non-productive assets such as submarines and jewels as items of capital is because they define physical capital formation to be investment. Investment is defined to be production of goods, which are not immediately consumed and so represent "savings". The nature of these goods is not a concern to economists. Goods not immediately consumed are described as capital goods whether or not they are procreative assets or non-productive assets such as submarines or income-producing assets like housing which may not obtain sufficient income to become procreative. Economists seem to be concerned only about the rate at which goods are produced or consumed, not their ability to generate or absorb wealth/cashflows. It is this latter feature which is a major concern for business people and households.

Because economists do not differentiate between the various types of assets there is considerable room for differences of opinion as to how wealth and so economic development is created. This has produced much controversy¹⁷ between

economists over various competing theories of capital formation, economic growth and development. Economists thus have difficulty in convincing themselves that they understand the mechanisms of economic growth. Business entrepreneurs have no such difficulty.

Samuelson is conscious of these shortcomings in economic theory. He reproduces the quote paraphrased from Lord Kelvin who said: "When you can measure what you are speaking about and express it in numbers, you know something about it; when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of science...". Unlike the profits paradigm, the cashflow approach provides a quantitative way (refer to line 3 of Table 1) for testing which type of asset generates wealth.

It is interesting to note that thirty-five years earlier, Moulton had a much simpler and clearer discussion over the meaning of the word capital that either Heilbroner & Thurow or Samuelson. As noted earlier, Moulton saw the need to distinguish "procreative property" from other meanings of the word capital. Moulton also describes the "round about method of capital formation" which I will describe as the confluent development process. It was because of these practical insights into how the commercial world works that my attention was drawn to Moulton's book by Louis Kelso whom I retained as my attorney for an U.S. corporate acquisition in 1974.

7. Economic growth

Not only must all procreative assets be self-financing but also they provide the means for a business, community, region or economy to grow on a **self-financing** basis. As procreative assets provide the only way to increase output with less labour, the formation of procreative assets provides the only way to improve the quality of life without people working harder or longer. The rate of formation of procreative assets determines the rate of economic development. Because all procreative assets must be self-financing, the rate of development cannot be limited by finance, provided the community, region or economy has appropriate banking institutions to create as much credit as there are opportunities to increase productivity.

However, a view has developed that economic growth is limited by investment and that investment is limited by the availability of savings in the form of money. This view provides the rationale for many current policy initiatives to encourage people to save more and for the establishment of institutions such as the World Bank to redistribute savings and so investment.

A much more effective and efficient approach would be to establish financial arrangements, which would permit investment to be financed out of the savings created by the investment. This self-financing, "pulling yourself up by the bootstraps" approach, describes a confluent development process, a process developed in the U.S.A. (Moulton 1935), Japan and Germany at the beginning of this century.

I describe it as confluent because investment, savings, income and expenditure can all increase together in a self-supporting reinforcing manner. The alternative approach is for people to spend and consume less so that they can increase savings and investment. I describe this as a CONTRARY development process as people must take one step back and consume less so that they can increase saving and investment to take them two steps forward. However, if people spend and consume less then the need for new investment to increase output will decline and so frustrate the development process. It is no longer a self-reinforcing process but a stop-go one creating business cycles.

It is shortages of labour, material and know-how, rather than credit, which provide the fundamental restriction on the rate of economic growth. However, such shortages can be circumvented by importing procreative assets rather than by constructing them locally. The increased productivity of such assets can then be used to ease any bottlenecks of labour and materials. If access to foreign exchange to pay for the imported know-how was a concern, then the procreative assets acquired would need to be those which were self-financing in terms of the foreign credits required for their purchase.

Because the introduction of procreative assets increases the output of goods and services, the volume of money needs also to be increased if we are to keep constant the ratio of money to the value of traded goods and services. By keeping this ratio constant, the value of money is kept constant. If economic progress is not to be inhibited by a lack of money then we need a financial system, which will create as much credit as there are opportunities to build or import procreative assets. We also need a system, which will restrict the creation of money and credit for financing activities, which do generate more output.

We thus need financial institutions, which can distinguish between the formation of procreative and other types of assets. The problem is that the test on whether an asset is self-financing (ie. procreative) or not can be applied only after the asset has been built or imported. Many assets introduced to increase productivity and so be procreative may not perform as expected as

noted in Figure 2. If the money supply were increased to produce an asset which was intended to become procreative but ended up being degenerate, then the value of the currency created to finance the asset would also degenerate.

To protect the value of the currency, a mechanism is required which will reduce the money supply to the degree that the volume of money has been increased to finance assets, which do not turn out to be procreative. This could be achieved by requiring private sector interests to guarantee the liquidation of any credit created to finance the introduction of assets intended to be procreative (refer to Figure 1). If the asset becomes procreative, and then it will by definition become self-financing and so be able to pay back any credit created without resort to the guarantee. However, contraction of the volume of money and credit in these circumstances would not be needed except to offset the effect of expanding money and credit to finance consumption expenditures and degenerative and/or consumption assets.

If the assets do not become procreative, then the guarantor would need to contribute value to the extent that the asset did not become self-financing. The guarantor would need to charge a fee to accept the risk of the productive assets not becoming self-financing. The size of the fee would reflect the perceived risk of new productive investment not becoming procreative in the same way that insurance premiums reflect perceived risk. The perceived risk can be substantially reduced or even accepted without a fee when the guarantors are the consumers who need the output of the productive facility. The size of the self-financing risk fee or investment performance guarantee fee could be determined by market forces like any other insurance market to allow the efficient allocation of resources.

However, if distortions in the allocation of resources are to be avoided then the cost of money and credit would need to be neutral. Suhr (1989, 1990) describes neutral money. Lenders and borrowers to create what could be described as negative interest rate money share the transaction costs of neutral money equally. A similar concept is described as "stamp scrip" by Gesell (1891), Fisher (1933), Keynes¹⁸ (1936), White (1987) and Lietaer (1989). Some of the profound advantages of neutral money are discussed in section 10.

8. Financing Economic Development

If all bank loans issued to finance productive assets were guaranteed to be repaid in full by credit insurers, then a bank, which lent money only to finance productive assets, would not be exposed to **any credit risk**. These banks would not need to meet the current accepted prudential ratios, which require at least 8% of banks total assets to be financed by equity rather than by debt. If a bank were not exposed to any credit risk it would be exposed only to liquidity risks like dealers in government bonds who typically have only 4% of their assets financed by equity. If banks financing productive assets could be structured like bond dealers, they would become far more competitive and efficient as financial intermediaries. Because the equity would be leverage to a greater degree, there would be an increase in equity returns to allow the margin between borrowing and lending costs to be smaller.

The existing equity and debt structure of banks is sub-optimal to manage either credit or liquidity risks. Liquidity risks are most efficiently managed with high ratios of debt to equity so as to minimise the interest margin between short and long-term funds while maximising the return to shareholders. Credit risks are more efficiently managed with institutions which have little or no debt such as is found with most insurance companies and Lloyds underwriting syndicates of London. Having the two types of institutions working together would create a more efficient financial system. However, such an arrangement cannot evolve naturally with the existing monetary regime and the sub-optimal structure of banking. Governments would need to use their monopoly power over their monetary systems to remove the monopoly price/interest rate which they charge for money and credit issued without risk.

The removal of the monopoly price for risk-less credit was a basic requirement to allow a CDIC to become established as proposed by Kelso (1967) and Bailey (1989). Part of the Kelso proposal involved the expansion of credit by the Federal Reserve to finance people into the ownership of corporate stock issued to finance new productive capacity. A seminar was held on the proposal at the Brookings Institution, Washington, D.C. in September 1977 as recorded in Speiser¹⁹ (1986). The moderator of the seminar, Professor Lawrence Klein, is quoted as saying "the expansion of Federal Reserve credit will not be inflationary if the funds made available flow into investment that raises national productivity".

While the Kelso proposal was based on a centralised government owned CDIC, I would propose that its function be carried out by many decentralised locally owned and managed credit insurers. In this way, it is more likely that consumers and other stakeholders could participate in both accepting the self-financing risk and be able to play a role in reducing the risk by purchasing some of the output produced by the assets being financed²⁰. Private rather than government productive credit insurance is preferred to encourage competition and so the establishments of insurance risk markets to allocate credits. In this way, the cost of credit insurance, rather than the cost of money, which is determined by a government monopolist, would allocate productive resources.

Moulton (1935) points out that early in this century, the risk of productive assets becoming self-financing was accepted and averaged out over time and over different sectors of the U.S. economy by investment banks. This occurred before the creation of money and credit was centralised and so monopolised through amendments to the Federal Reserve Bank Act of 1934. The same sort of risk sharing over time and industries was achieved by quite a different means with the establishment of worker co-operatives in the Mondragon region of Spain. However, the Mondragón situation did not involve a confluent development process as new investment is financed from past savings rather than from creating credit to finance the investment. This lowers the current income of Mondragón workers, as new investment is not financed from the savings created by the improved productivity introduced by the investment.

The Empresarial Division of the Caja Laboral Popular (CLP) accepted the risk of any new worker Co-operative not becoming self-financing in Mondragón over many years. This division was established as a separate co-operative in 1987. The CLP and its Empresarial Division could accept the risk of a new venture failing as it obtained a share of the cashflow ("profits") of all the other industrial co-operatives which owned shares in the CLP (Refer to [Figure 15 Mondragón Governance](#) and [Figure 16 Governance of Mondragón Structures](#)). In this way the CLP could offset any start up losses from the cashflows averaged out over many firms. This close relationship between banks and industry is apparently the way a confluent development process arose in Japan and Germany early this century. Credit to finance new enterprises was created by a practice called "over-loaning" with the risk of loss supported by the equity base of well established associated industrial shareholders.

Even if the confluent process of Japan and Germany could be replicated by design in developing economies, it is not recommended as it would concentrate the ownership and control of the means of production. The arrangements that existed in the U.S.A. during the early part of this century also denied democratic ownership and control. As discussed in [Re-inventing Corporations](#) (Turnbull 1991), the Mondragón model would be difficult to replicate and as noted above, it does not introduce a confluent development process.

There are many ways in which confluent self-financing economic development could be introduced to expand the ownership of the means of production. For reasons discussed in section 13 decentralised arrangements are preferred which can be introduced unilaterally at the local level. However, unilateral initiatives depend upon also introducing a decentralised autonomous banking system as described in *Building Sustainable Communities*.

Alternatively, selective monetary policies could be introduced with Central Banking. An example of this approach is provided by a feasibility study I prepared as a consultant to the United Nations Capital Development Fund (UNCDF) to introduce a confluent development process into the Yemen Arab Republic (YAR). The proposal was based on YAR Central Bank purchasing insured interest free loans used to finance procreative assets. The elimination of interest charges had considerable religious appeal in this devout Moslem country.

The UNCDF was interested in a proposal to increase the productivity of Yemeni fisherman operating sail boats in the Red Sea by financing them into the purchase of outboard motors. The outboard motors would allow them to triple their catch. The value of this increased productivity would pay off the cost of purchasing the outboard motors within six months. The catch would be tinned for export to provide the foreign exchange required purchasing the outboard motors/procreative assets.

The problem was to ensure that the Yemeni fisherman did not sell his outboard motor to an Egyptian trader across the Red Sea, spend the money and default on his loan from the local bank, which was to be financed by the UNCDF. The solution was to find a local credit risk insurer as the English bankers had done over the centuries in their Asian branches. These people were described as Compradors. The people most qualified by wealth and ability to become credit risk insurers in the seaports of the YAR were the local merchants. These merchants had established a chamber of commerce through which they would guarantee to the government that any young man who was sent at government's expense to be educated in the capital, Saana, would return after his studies.

The one page guarantee document was signed by the parents of the student and registered with the chamber of commerce. In most cases the parents did not pay a guarantee fee, they simply promised to provide the guarantor with one of their daughters to the merchant as an extra wife if the student did not return! To avoid this practice and allow a guarantee fee to be paid without making the cost of the loan excessive, I proposed that no interest be paid on the loan. This was acceptable to the UNCDF who were interested in establishing a revolving loan fund for micro enterprises. The guarantee fee would replace the interest cost. As the guarantee fee reflected risk, the perceived risk and/or the desire of a merchant to obtain a source of fish for re-sale would allocate resources.

Only one more step was required to introduce a confluent development process into the YAR on a sustainable basis. This was for the YAR Central Bank to take over the role of the UNCDF by providing finance through purchasing the insured loans. Inflation would not be introduced as all loans were guaranteed to be self-liquidating and so contract any credit expansion

made by the Central Bank to initiate the development process. To provide the highest quality insurance to the Central Bank to get the process established, I proposed that the UNCDF would co-sign the guarantee provided by the merchants. If the UNCDF or such other agency wanted to get paid for its contribution, then it could obtain a share of the surplus profits generated by procreative assets as is done by the CLP in Mondragón.

9. Surplus Profits

Surplus profits are the cashflows generated by procreative asset in excess of the incentive required attracting investment into them. Surplus profits represent a surplus incentive. The existence of surplus profits is denied by the existing paradigm, which assumes that market forces will eliminate any excessive profits. The reason that market forces do not eliminate surplus profits is that we have created a system of property rights, which shut out market forces. Not only do we provide exclusive (monopoly) ownership rights over real assets but they are provided on a static perpetual basis. In comparison, all property rights to intangible assets, such as patents and copyright, are provided on a time limited basis.

An alternative system of co-ownership, dynamic, time limited property rights is described in Re-Inventing Corporations. This paper discusses in greater detail the concepts of surplus value and dynamic ownership rights (dynamic tenure) but it does not include Figures 3, 4 and 5, which may more efficiently illustrate the concepts. Surplus profit arises from the surplus value created by procreative assets after the investor's time horizon. Dynamic tenure allows what Marx would call a "capitalist profit" to be converted into a "community return".

When I was working at Standard Oil in 1962, requests for investment funds for new projects from around the world were supported by cashflows which covered the 20 to 30 year operating life of the various proposals. Because of the uncertainty introduced by competition, technological change, industrial action, social unrest, political initiatives, foreign exchange fluctuations, interest rates, etc., no cashflows provided after a given time horizon were used to justify an investment decision. The time horizon was always less than ten years and in some areas of perceived high risk, the time horizon might only be two or three years. All cashflows received after the time horizon were by definition surplus profits.

Some may argue that any such "windfall" or "unexpected" profits arising after the time horizon are not surplus as they are needed to offset losses made on other investments. But the cost of such losses are already factored into the rate of return ("hurdle" or "target" rate) required from investments within the chosen time horizon. Because by definition, surplus profits are not taken in investment evaluation, they cannot be allocated *a priori* to cross subsidy investments, which do not perform.

However, there is no limit to human greed or opportunism. So very strong arguments can be expected to deny or justify the capture of surplus profits. But in practice, even when an investment opportunity is not subject to public competition, there is a practical limit to the time period for which business analysts will rely upon for obtaining cashflows in the future. Because the value of future cashflows are discounted back at the equity investment opportunity rate, the present value of any cashflow available after ten years will be negligible in any event. Venture capitalists commonly use investment time horizons of less than three years. Ironically, the greedier the investor, then the shorter will be the time horizon and so the greater will become any surplus profits.

Figure 3, Surplus Profits, illustrates an investment with a five year time horizon for an asset which has a ten year useful life. The profit produced before the time horizon is 150% of the investment cost while the surplus profits are 225%! Many multi-million projects typically have a useful life of 30 years. If their investor had a ten year time horizon, then the surplus profits generated over the following 20 years could amount to hundreds of millions of dollars, refer to Figure 4, After tax Returns from an Investment of \$100. It is not good economic or business sense for any host community, region or country of such a project to allow surplus profits to drain out of their economy on this basis. Communities, regions and nations, which provide perpetual, static, monopoly property rights for such projects are thus permitting economic vandalism to occur on a grand scale.

The size and even existence of surplus profits and the economic vandalism that they create, is hidden by the existing paradigm. Like Canada, foreign interests on a static, monopoly perpetual basis own around 50% of the productive assets in Australia. Because the country does not keep a balance sheet, the sovereignty of profits generated is unknown as is the extent of surplus or community profits exported to aliens. From the considerations mentioned above, one could say that all remittances made after ten years from any investment represents a surplus profit. Such a statement could be applied to domestic as well as foreign investment. What is known, is that Australia has the third largest foreign debt in the world and that net foreign liabilities now represents more than 50% of GDP. "Almost 25% of Australia's export earnings now go overseas in the form of dividend or interest²¹".

The concept of Ownership Transfer Corporations (OTC's) was developed to provide a more efficient basis for attracting

foreign investment. It is more efficient because it minimises the export of surplus profits. Many countries have mandated time limits on foreign investment. In some countries, it is not possible to incorporate a company with perpetual rights. [Figure 5. Ownership Transfer Corporation \(With tax incentive\)](#) illustrates how a relatively small corporate tax incentive could provide the incentive for stockholders of **existing corporations** to vote in favour of a change in their corporate by-laws to convert their company into an OTC. In [Re-inventing Corporations](#) it is also explained why OTC's would create a more equitable, self-governing, socially accountable, and environmentally sustainable institution. In [Table 3. Existing v's Ecological Corporations](#), OTC's are described as ecological corporations because they follow principles, which are found in nature such as limited life and giving birth to successor entities.

10. Structure of Money

The structure of money has fundamentally and universally changed during the middle of the current century but the words used to describe it have not. This is another example of why the words used in the current economic paradigm to study and analyse monetary matters can no longer provides a meaningful description of reality.

We have now have the absurd situation of money being used to allocate resources and controlling reality while it can no longer be defined in terms of anything real. This is because money is no longer defined in terms of real things such as gold, silver, copper, iron, cattle, pigs, grain, tea, wives, slaves, whisky, cigarettes, wampum shells and numerous²² other items which over the last 10,000 years have been used as money. Since President Nixon took the U.S.A. off the gold standard in 1971, words such as "reserve", "specie currency" and "deposit" have lost their original meanings. We no longer "deposit" anything at a bank in any physical sense except perhaps ink marks on paper when we are not using a computer to transfer value to a bank (ie. "Making a deposit").

Money in the form of metal had the advantage of having a very small cost of storage compared with costs of maintaining grain, cattle, wives and slaves. The cost of storage could be described as a negative interest rate. Money in the form of grain and cattle could reproduce while wives and slaves could in addition contribute value by working. It was seen as natural for money in these forms to increase in value over time to provide what we would call today a positive rate of interest. The idea that money in the form of metal should automatically have its value increased over time was seen as against the natural order of things²³. A view that most people would share today as being just as absurd as ink marks on paper or magnetic patterns in computers automatically increasing their value, and so their claims on resources, with the passage of time. However, such automatic increases in value are not seen as absurd to those who believe in the current economic paradigm.

Economists will argue that interest payments are the price needed to be paid to provide the incentive for people to give up consumption (ie. save) and so invest. In many circumstances this is not true, especially in satiated societies where people cannot or do not wish to consume more just because they obtain additional income. The ethic of conspicuous consumption is being replaced with status activities and/or conservation.

In poor societies, savings and investment may not even be monetised. A Yemeni fisherman who diverts his labour from catching fish to building his fishing boat is also saving and investing but without using money. He might well spend his labour investing when there was not an opportunity to fish and in these circumstances he does not have to earn and consume less to invest. Because most primary production is seasonal, the opportunity to construct procreative assets with off-season labour commonly exists. The assumption that people must always earn and consume less to invest their labour in the construction of assets, which are not immediately consumed, is not valid, even in poor societies.

Money is no longer an efficacious self-correcting social information feedback and control system to organise society. Because money can no longer be defined in terms of anything real, there is limit to how much money can be created or how much its value can compound with interest. Nor does money have a limited life. It is no longer based on or constrained by ecological principles. Neutral money that is mentioned in Section 7 would follow ecological principles as outlined in [Table 4. Existing v's Ecological Money](#). Any money with a negative interest rate will lose value over time and so have a limited life.

With neutral money, people would want to save/invest in real things rather than paper money. Much of the incentive to exploit nature to make money would be lost. For example, people would want to save/invest in living trees rather than cut them down so as make and earn paper money! Neutral money would make renewable energy sources far more competitive than depletable sources. This is because in the case of renewable power the cost of interest typically represents around 90% of the cost of producing electricity from renewable energy sources and around 25% from depletable sources such as coal as illustrated in [Figure 6. Relative costs: Electric Power Generation](#). Depletable resources are more attractive only because of the way society currently structures money with its ability to increase its value over time.

Kennedy (1988) points out that interest costs in the German city of Aachen in 1983 represented: 77% of the rent of public

housing, 47% of the cost of sewerage, 38% of the cost of water, while the West German national debt grew 51 times between 1950 and 1985 while the GNP only grew 18 times in this period. Also, that 80% of German households pay more interest than they earn from interest. Neutral money would result in a more equitable sharing of the costs and benefits of money while substantially reducing the costs of goods and services.

The history negative interest rate money outlined by Lietaer (1985), shows that there is no reason why money must always have a positive interest rate. Like the characteristics of primitive money described by Einzig (1966), modern money has become a social artefact whose use and properties are culturally determined. We need to re-assess the utility of the currently accepted monetary paradigm. This also requires a re-assessment of the structure of banking in additional ways to that considered in Section 8.

11. Structure of Banking

The Bank of England was chartered in 1694 so as to lend all the 1,200,000 pounds weight of sterling silver invested in it by its members to the King at interest. The Bank earned double interest by also lending to merchants the title deeds (currency notes) to the same amount of metal. The charter gave the bank a monopoly to issue such notes in the city of London. The notes promised to deliver to the bearer on demand one pound weight of sterling silver (£Stg.). The King had the metal, the merchants had the title deeds and all the Bank was left with was paper contracts from each to return what each had borrowed with interest. By this means, banking was legitimated as a legal confidence trick.

The bank could earn more interest and so profit by printing more title deeds to the same metal. Such duplicity was called fractional banking as the metal (specie or reserve currency) held by the bank was only a fraction of the promissory notes issue to deliver metal on demand to bearer. In return for lending more metal to the Sovereign, the monopoly given to the bank was gradually increased to cover all of England. The structure of banking in England became the model for the world and now monopoly money is universal. Since convertibility into a specie or reserve currency ceased in 1971, the worlds' monopoly money has ceased to be related to reality and has become "funny money". The general level of interest rates are no longer determined by market forces but by monopoly power of governments and their central banks over money. The interest rate of risk free money represents a monopoly price.

The monopoly price increases the rate of return required by investment projects to make them attractive to investors. It also creates a bias for quick profits as the value of cash received in the future becomes more heavily discounted because of the higher level of interest rates. This bias accelerates environmental damage. The basis for most business and many government investment decisions are based on Discounted Cash Flow (DCF) analysis. It allows investment options with different timings in their cash flows to be compared so as to maximise returns, or in the jargon of financial analysts, to maximise the expected Present Value of future cashflows.

However, there are many situations in which the decision to invest or not make an investment changes the ability to sustain life or the quality of life and this can make the criteria of maximising expected Present Value irrelevant. For example, we do not discount the future cash value of a pension, as the purpose of a pension is to sustain life not to provide the opportunity to invest money. In other words, any cash received in the future to finance consumption should not be discounted. More generally, DCF analysis should not be used when the alternative to investing (or not investing) is socially unacceptable. The point to hold in mind is that even in a cashflow paradigm, social/environmental criteria may need to over-ride cashflow analysis.

The creation of interest free money to finance procreative assets by a Central Bank should not be seen as providing a subsidy but as removing a monopoly price. The operations of any market depend upon how the legal structure of the rights to property is constructed. Different structures will not only change the way a market operates but also create different types of markets. This makes the concept of a "level playing field" meaningless and many public policy prescriptions ineffective or even counter productive.

For example, the industry policy prescriptions that suggested by Porter (1989) would be counter-productive for Australia as long as the country maintains a single monopoly currency. As the value of the Australian currency is determined by the export of its primary products, the value of its manufacturing resources is determined by the international relative value of its primary products. In this situation the currency will overprice the value of manufacturing resources and so reduce their competitiveness. As described by Jacobs (1985), a single national currency cannot provide an automatic feedback mechanism to appropriately price and so allocate all domestic resources on an internationally competitive basis. In other words, the structure of trade and money in Australia creates an uneven playing field for manufacturing. In this situation, some tariffs may not be creating an uneven playing field; they would be in some instances helping to level it out!

However, from the point of view of those who use the profit paradigm, tariffs should be removed to create a level playing field. This would destroy manufacturing industry in countries with an economic structure like Australia's. The solution would be to also change the way in which the economic system works by the introduction of competing domestic currencies as suggested by Hayek (1976), Dowd (1988), Borsodi (1989) and others. From the point of view of these writers, a single fiat currency creates a comparative disadvantage for manufacturing industry in countries, which are commodity exporters.

The idea of a country creating a comparative advantage has been analysed by Scott (1992), a colleague of Porter at Harvard Business School. Scott points out that the comparative advantage of a country can arise from its natural endowments and/or the type of institutions and culture, which are created by its society. From the perspective of Scott we could say that the financial system which had evolved in Japan, U.S.A. and Germany at the beginning of this century, created a comparative advantage for these countries. An advantage which countries could obtain through the strategies suggested in this paper.

Porter based his initial analysis only on Northern Hemisphere manufacturing countries. The value of the national currency in these countries is largely determined by the export of their manufactured products. These countries have the reciprocal problem to Australia with their currency overpricing their primary products. Countries such as Japan, U.S.A. and Europe then need to provide heavy subsidies for their agricultural products. This explains why the General Agreement on Tariffs and Trade (GATT) has not been able to reduce trade barriers for both agricultural and industrial products. Jacobs (1974) also describes how national monetary systems created trade barriers within nations.

12. Windfall Gains and Wipe-outs

Windfall gains or wipeouts in the market value of an asset are those created by external factors. Windfall gains can arise in any type of asset because the increment in value is not being depended upon the asset providing any goods or services. Conversely, external factors can reduce the market value of an asset to create losses or wipeouts. As balance sheets are required to identify and analyse windfall gains and losses, they are ignored in the profit paradigm.

The extent of windfall gains and wipeouts in the economy can be substantial and play a very important role in the way the economy works and how business people operate. Some illustrations are worth noting.

In 1967 I became a founding member of a corporate raiding syndicate which specialised in acquiring companies listed on the stock exchange at a price well below that at which their assets could be sold. The very first company we acquired only cost us around 25% of the market value of all its component parts! Like all asset stripping situations, this purchase was self-financing and so we did not have to invest any money ourselves to get into the corporate acquisition business. The surplus we captured (profit) on this first deal was used to create the equity base for financing our subsequent operations. The reason why the break up value of the target company was so much greater than its stock market value was because of the windfall gains captured by company through its holding of realty.

As the member in charge of acquisition research for our corporate acquisition operations, I reviewed the balance sheets of all listed industrial companies in Australia over the next few years. Most companies at that time had a break-up value in excess of their market value. There are only three ways in which corporations can acquire value: (1) from the money invested by their shareholders, (2) profits retained in the business, (3) windfall gains from property rights. The extent by which each method has contributed to the value of a company since its formation is shown in the balance sheet. As a general rule, the value of windfall gains in the majority of Australian listed corporations at that time was well in excess of the profits retained from the production and exchange of goods and services. Such gains were often well in excess of the initial paid in equity.

In other words, most of the listed corporations financed their growth from windfall gains rather than from trading operations or from funds contributed by investors. In effect, the companies were using their trading operations to finance the holding costs of their land and buildings. Such companies were really in the property investment business, even if this was not recognised by their owners and managers. Corporations whose operations required owning large areas of land such as automobile distributors and retail chain stores captured extensive windfall gains and provided the most attractive target companies for corporate raiders.

A notable example of the capture of windfall gains is the wholly owned subsidiary of the US based General Motors Corporation in Australia. The expansion of the subsidiary from a vehicle assembler in 1926 to a manufacturer in 1945 was mostly financed through windfall gains. Like our corporate raiding operations, the subsidiary was capitalised through the issue of free shares created from property revaluations. Only A\$2 million had been invested in the company by 1945 and no further common shares had been issued for cash yet in the 1960's the dividends remitted to GMC each year was 200% greater than the cash subscribed to set up the investment! This is a clear example of surplus profits.

The size of the dividend remittances became a political concern, as the company was a monopoly producing sheltered by high tariffs! As a political cosmetic manoeuvre, the company increased by a factor of around ten times, the value of its shares on issue in 1967. This reduced the ratio of dividend value to shares on issue by a factor of 10 to a more politically acceptable of around 20%. However, GMC did not invest more money to obtain the tenfold increase in shares, as they were "bonus" shares issued free. The ability of the subsidiary to issue such free shares was created from windfall gains in the value of the land owned by the company. These increments in value were not created by the company but by Australians bidding up the value of urban land. A clear example of how markets forces not promoting either efficiency or equity.

The degree to which surplus profits are supported and compounded by windfall profits is illustrated by the book value of the GMC subsidiary reaching A\$200 million in 1974 after it had paid dividends of A\$250 million to GMC while the subsidiary was still able to report that its book value had in addition, risen to over A\$200 million! The capture of such excessive profits is only possible because of the rules used by society for owning land and corporations. More efficient and equitable rules are required to eliminate what Penrose (1956) describes as "unlimited, unknown and uncontrollable foreign liabilities". However, the problem is not just a concern to foreign investment. The same inefficiencies and inequities exist in all domestic investments based on static, monopoly, perpetual ownership rights. The solution is to adopt dynamic, co-ownership, time limited rules which follow the principles of nature such as those tabulated in Table 3 and illustrated in Figures 5, 13 and 14.

Windfall gains are also widely utilised by privately held companies to finance their growth. Yet this vital economic phenomenon is invisible to people who use the profit paradigm as the basis for economic analysis. Windfall gains are especially important in a country like Australia where average land values in many urban municipalities has increased at a compound rate of over 20% pa. for over a quarter of a century. This means that land valued at \$1 million would become worth over \$500 million during this period in a country which only introduced capital gains tax for assets purchases after 1985. Kennedy (1988) points out that the value of urban land in the Federal Republic of Germany rose three times faster than wages from 1950 to 1982.

Windfall profits do not generate wealth. The increased value obtained must be captured from others. The demand for use of the property by the non-owners creates the windfall gains for the owners. The existing system of property rights thus provides a very efficient way of transferring wealth from the poor and/or the productive who may not own property to the rich who own property and may not be productive. Inflation compounds the concentration of wealth by this means as described in *Democratising the Wealth of Nations*²⁴ and Turnbull (1988). Solutions to this problem using the existing paradigm are limited to the introduction of taxes to transfer back the values captured by property owners. The proposals of Henry George (1980) provide an example in this regard. A cashflow paradigm would have provided both George and Marx new solutions for the problems, which concerned them.

Most taxes introduce disincentives and distortions and increase the power and cost of government. The cashflow paradigm allows solutions to be introduced which not only allows these costs to be minimised but which more importantly, correct the fundamental problem inherent in the current system of property rights. It is the rules for owning land and buildings, which create the problem. Taxes only address the adverse effect, not the cause of the problem. A better approach is to adopt more efficient and equitable rules for owning things. Rules that replace the current static, monopoly perpetual rights with dynamic, co-ownership time limited rights as mentioned in Section 9 for corporations. This system will be referred to as "dynamic tenure".

However, to introduce dynamic tenure into the ownership of urban land and buildings, a structure different from that suggested earlier for corporations would be required. One suggestion in this regard is the concept described as a Community Land Bank (CLB) illustrated in [Figure 13, Duplex Tenure](#) and [Figure 14, Dynamic Duplex Tenure](#). Further information of this concept will be found in the references listed in the CLB bibliography contained in Appendix II. Appendix II also contains the views of some international experts on land that the CLB introduces a new paradigm for land ownership.

13. Cybernetics and Social Ecology

The introduction of dynamic tenure into the rules for owning land, buildings, enterprises and banking would introduce ownership and control as a variable rather than as a given into the structure of society. It would allow the political, social and so institutional context in which economic activities are considered to become a variable rather than a given. Much more importantly, it would introduce new channels of feedback information and controls to improve the self-governance of society.

In the middle of this century, a new branch of science developed to study information and control systems. It was called cybernetics and it was developed to assist in the design of complex self-regulating machinery and electrical systems. It also provided new insights into all living things whose very existence is depended upon having in-built automatic self-correcting mechanisms.

A search of the literature on cybernetics will reveal that while it has also become a topic for students of management, it has not yet become a concern to those who study economic systems. If current economic systems were evaluated on a cybernetic basis, one would be forced to conclude that the present economic system is heading for extinction with all those who play a role in it.

This is because the impact which humanity is making on the bioregions of the world has no automatic feedback and control mechanism to protect the environment, which allows humanity to exist. As noted in section 10, we now have the unstable situation where natural resources are exploited on monetary criteria but the value of money is not depended upon, or even determined by, the resources of nature. That is, there is no automatic feedback and control mechanism protects and so maintains both nature and society.

An ecologically sound economic system, would by definition, need to be controlled by the characteristics of its host bioregion. Ideally, this would mean that the majority of the food, shelter, clothing and energy consumed in each bioregion would be produced from sustainable resources from the region. In this way, the visible physical structures of society would be determined by the attributes of the host environment.

The invisible structures of ownership, control and finance would also need to be determined by the characteristics of the local bioregion. For local or imported resources to be managed on a sustainable basis, all land, enterprises, banking and currencies would need to be locally owned and controlled. In addition, the invisible structures of ownership, control and money would need to be organised on ecological principles.

There are some basic ecological principles to be considered. For example, all living things:

1. Always have in-built limits to growth
2. Give birth and die
3. Are self-regulating
4. Contain multiple information and control systems.

In-built limits to growth and the creation of life cycles would be a natural outcome of adopting neutral money with its negative interest rate and dynamic tenure with its time limits. Neutral money and dynamic tenure also increase the opportunities for self-regulation by diffusing the power of ownership and control to allow the introduction of additional checks and balances. By making ownership and control a variable, an additional cybernetic channel is created to further spread political and social power and so create more checks and balances.

If we analyse our society as an information and control system then we would discover that economic transactions represent just one of four different channels for distributing information and controlling resources in society. The economic system represents a channel, which can only communicate value not quality. The command and control system found in non-market economies and within corporations and other institutions of market economies represents another channel of information and control. Both a command and market systems have various advantages and disadvantages as outlined in [Table 5, Methods of Social Information and Control](#). During this century, millions of people have died in the ideological competition between these two systems.

However, little attention seems to have been paid to the two other cybernetic channels listed in Table 5 and [Figure 7, Spheres of Transactions](#). Figure 7 indicates the various transactions in which society is involved and the four channels used for providing information and control for these transactions. The semiotic channel is so named as social information is provided in the form of signs and symbols²⁵. This channel is rarely explicitly recognised and utilised in modern society although its implicit use is universal. One text which describes what I have referred to, as semiotics in modern society and which was required reading at Harvard Business School was *The Silent Language* (Hall 1958).

I did not appreciate the full significance of the semiotic channel until I was commissioned by the Australian Government to undertake the first official economic study (Turnbull 1980) of Australian Aborigines. The government wanted to promote their self-management and to do this I needed to understand their traditional system of governance, which was impressively effective²⁶. Their system made it possible for hundreds of Aborigines, speaking many different languages, spread over hundreds of miles, to decide where and when to have a corroboree, allow all of them to arrive at the right place at the right time and program a complex integrated week of music, singing, dancing, ceremony and catering without any rehearsal. It

would be impossible for people in advanced societies to organise themselves in such a manner even with a common language, electronic communications, calendars, clocks, and detailed maps, scores, scripts, choreography, supply and procurement lists and extensive rehearsals!

Semiotic communication and control of Aboriginal society appears to be very much part of their culture. Just as we might not appreciate how Aboriginals organise themselves, so might a visitor from space observing modern society in various parts of the world. The rules for the automatic self-regulation and control of automobiles on roads so that they minimise collisions are also culturally determined. Some cultures keep to the right others to the left! Semiotics is also used by social animals. There are numerous examples, like bees informing other members of their hive where to locate nectar.

The fourth channel of social communication and control is based on our senses. This is the most primitive and is shared by most animals. In his essay on *Participation Without Politics*, Samuel Brittan (1975) identifies only three ways people "can be brought to co-operate for their mutual benefit".....the command system, market system and "mutual benevolence" or "unenforced good behaviour". He states that "All societies use all three principles - commands, unenforced good behaviour and the market." While Brittan's essay was inspirational in the study of Aboriginals, it became clear to me, that their co-operative actions, some over large distances, involved something more than just "unenforced good behaviour". Nor did Brittan's concept of mutual benevolence seem an appropriate description of what is known in the literature as 'public choice theory' as propounded by Tullock (1975), Buchanan (1986) et. al. From the cybernetic paradigm implicit in Table 5, it would seem that Brittan's mutual benevolence is an amalgam of both semiotic and sensory channels and that public choice theory is based mainly on semiotics.

If we could analyse the volume of information used in each cybernetic channel by the various types of society, the result might be represented by the chart in [Figure 8. Channels of social information and control: comparison between different societies](#). Figures 7 and 8 illustrate the relative minor role played by markets in organising even modern societies. In the context of cybernetic systems, Figure 1 indicates how the profit paradigm introduces even greater limitations on understanding human affairs. Early societies required no reliance of economic markets and had little or no reliance on command systems.

These observations lead one to conclude that even the "holistic" (refer Figure 1) study of economics provides an inadequate basis to analyse social transactions and institutions. As the purpose of such analysis is to sustain and improve society, the scope of study required might best be described as "social ecology" rather than socio-economics.

14. Strategies for Sustaining Society

From Table 5 it is evident that if we are to minimise alienation between people, or between people and their social institutions, or between people and their bio-region, we need to minimise the reliance on market and command systems. Strategies are required which will allow greater reliance on semiotic and sensory systems. If market forces and command orders are not to degrade nature, people, and their institutions, then we need strategies which will make market forces and command orders dependent upon nature, people and their institutions to provide self-correcting feedback loops.

As there is a great diversity between bio-regions of the world, each bio-region will need to provide its own distinctive information and control mechanisms to maintain its existence in the same way every living thing has its own in-built self-regulating systems. To achieve this objective, all resources such as land, buildings, enterprises and money in each bio-region of the world would need to be under the control of people living in the region and dependent upon its resources. That is a strategy is required to "de-link", to some greater or lesser extent, the social information and control feedback systems of one community from another. A new pattern of linkages is required as outlined and tabulated in Table 7.

A strategy of local ownership and control would substantially reduce the power and extent of large-scale institutions and so the command system. It would introduce smaller scale institutions to improve the role of semiotic and sensory systems. Local ownership and control is also required to maximise the standard of living and/or the quality of life for residents in every region of the globe as it minimises the export of economic values in the form of rents, royalties, dividends, profit shares and interest payments. The ownership of these transfer payments is not commonly analysed by economists using the profit paradigm. Local ownership is required to improve the ability of every region to become a self-financing economic system. There are many households, communities, and regions, which export over 25% of their incomes through the cost of servicing external borrowing and property ownership.

To allow each bio-region to become self-financing it will need to develop institutional arrangements, discussed in section 7,

to introduce a confluent development process. However, the efficacy of such arrangements will be reduced unless external credits and ownership are minimised to stop the export of development values created through the payment of interest, surplus profits and windfall gains. Localising ownership provides a way of minimising economic drains and de-linking the local economy from external command systems. It provides the same result within regions and nations to introduce a more participative and democratic control system.

Political independence is a factor in improving the quality of life. Political independence and so the self-governance of any community, suburb, city, region, state or nation is dependent upon being financially independent. To facilitate this objective all resources should be all locally owned. This also directly reinforces political independence. Self-financing, self-governing communities will also be able to select the type of technology most appropriate for their host bioregion for adding value to their community and nurturing their environment.

The most fundamental requirement for nurturing the environment is to contain the plague of people on the planet. To maintain the biosphere and bio-diversity, the impact of humanity needs to be reduced. Population levels stabilise when adequate levels of social security and quality of life are available. As democratic capitalism (Figure 12) creates a more equitable distribution of income producing assets, it provides a more efficient way to provide universal social security and improved quality of life. By introducing local ownership and control, democratic capitalism would also allow each community to become directly responsible for the stewardship of its local environment. In this way each community could establish for itself the appropriate level of population to sustain a satisfactory quality of life.

The building of sustainable communities is depended upon establishing self-governance at the local level. Self-governance will need to encompass economic, social, political and ecological concerns. The social information and control circuits of each of these elements of social organisation will need to be integrated with each other and their attributes determined by the host bioregion.

The ability to make any system self-governing is enhanced by minimising the length of the information and control circuits. This reinforces the strategy articulated by Schumacher (1974) in *Small is Beautiful*. He also articulated a theory of large-scale organisation. One part of this theory was that no activity should be undertaken at a higher level, which can be better achieved at a lower level. The proposals in Table 7 are based on this strategy as it minimises the traffic of information and control responses through a command system.

To minimise reliance on market and command systems within each community, institutional structures need to be designed to limit the number of people involved in each institution and the scale of their operations. The worker owned co-operatives in Mondragón found that self-regulation began to become unsatisfactory when the number of people in any enterprise exceeded 500 people. This is another way of saying that with a greater number of workers, the social feedback information and control channels became too long, weak and unreliable to allow satisfactory operation in a 100% worker owned firm. There are many non employee owned firms which retain their competitive advantage with over 50,000 people, but this is achieved by organising people into many units in which the number of people rarely exceed 500 people.

The number of people who can be meaningfully involved in the basic unit of local government could be much larger, say around 50,000, because the activities of the organisation are not so volatile as an enterprise. Clusters of self-financing, self-governing urban precincts would federate to create Cities or Regions. Regions and Cities would federate to create Nations and Nations would federate to create global governance (refer to Table 7). Global governance is needed to protect the global commons such as the oceans, air and ozone layer, etc. Intrinsic in such a cascade system of governance would be a cascade tax system such as was used in feudal times. Each level of governance would only tax the next lower level, which it federated or represented.

To allow every community, region and nation to maximise local ownership and control of its land, buildings and enterprises, new rules are required for owning things. The concept of ownership evolved from use. We recognise this today with the saying that "possession is 90% of the law". In squatter settlements, it is the use of land rather than any legal technicalities of ownership, which is important. In such informal sectors, ownership cannot be maintained without usage. As the amount of property any individual can use is limited both in time and geography, such an ownership rule would be consistent with the ecological principles listed in the previous Section.

We should then ask the question: what is the social utility of adopting rules for owning things which impose no limits on the size, number, extent and time of ownership? One answer is that there is considerable utility with such rules for individuals who wish to maximise their political and social power, wealth and influence without limit. The incentive for feudal rulers to adopt such perpetual, static and monopoly rules of ownership was irresistible and so led to our current ownership paradigm.

The Indian leader, Mahatma Gandhi, who was educated in London as lawyer, saw the need for a different "non violent" ownership paradigm. He developed the notion of Trusteeship in South Africa²⁷ and later introduced it to India where it was seen as representing the philosophy of the Upanishads²⁸. The idea is that any owner of property is only holding it as trustee for society. Gandhi saw the need for people to obtain a "legitimate" return from their property but that any surplus should belong to society. This articulates the idea of a surplus or community profit discussed in Section 9. The ownership of patents illustrates the Gandhian idea. Nowhere in the world can patents and the profits, which may arise from their ownership, last longer than 20 years. Twenty years provides the necessary and sufficient incentive to invest in a patent after which time it enters the public domain as "prior art" to be used by anybody without charge.

However, to make the Gandhian Trustee concept operational on a cybernetic basis for corporations and reality we need to introduce the concept of STAKEHOLDERS. Stakeholders are those individuals who are affected by a given property. To create a self-regulating cybernetic social system we need to ensure that all individuals affected by property have some co-ownership and control rights over the property. To achieve this objective we need a new concept of ownership so that users of land and buildings, would by their use, become owners and controllers. Likewise, employees, customers and suppliers to enterprises would by their functional stake in the enterprise become co-owners and controllers. Stakeholder tenure would establish cybernetic relationships between all individuals and all property and so provide a basis for creating an ecological economy as outlined in Table 6.

Stakeholder tenure would introduce dynamic, co-ownership, and time limited property rights to replace the current system of static, monopoly, and perpetual rights. Stakeholder ownership would automatically introduce, over time, localised ownership. Ownership Transfer Corporations (OTC's) and Community Land Banks (CLB's) are institutional structures for introducing this ecological form of ownership. They each introduce (1) constant change; (2) limited life and (3) limits to growth as is found in all living things.

Figure 11. Stakeholder Governance. illustrate how this form of ownership would introduce a much richer cybernetic structure to firms than those found in socialist countries (refer to Figure 9. Socialist Governance) and English speaking market economies (refer to Figure 10. Anglo Governance). The only information and control system available to a socialist firm is based on a command system. As indicated in Figure 9 there could be two command systems operating in parallel. But as indicated in Table 5, command systems have shortcomings, which do provide them with a competitive advantage, and this is one practical reason why socialism has failed. A firm operating in an advanced market economy is subject to multiple private and public sector commands as well as to market forces. This multiplicity of checks and balances improves both the competitive advantage of firms and their self-governance. Stakeholder ownership and control would reinforce these improvements and introduce greater social accountability as discussed in Turnbull (1991).

OTC's could be introduced on a voluntary basis through tax incentives as discussed in Turnbull (1991) and illustrated in Figure 5. (The sloping line at the top of Figure 11 represents the sloping line of ownership transfer of Figure 5.) There are various ways of introducing CLB's as discussed in the literature listed in Appendix II. There currently exists a historical window of opportunity for countries transforming from socialism to avoid the introduction of the current exploitive ownership paradigm. A number of techniques, which are complimentary to CLB's for owning, and controlling non-urban land are described in Bennello (1989).

The universal adoption of stakeholder tenure would increase both the equity and efficiency of a private property economy. Equity would be increased by the inherent limits created for any one individual to own property. Efficiency would be increased in a number of ways besides the minimisation of surplus profits as discussed in Turnbull (1991). Stakeholder tenure would introduce a two-income economy as envisaged by Kelso (1967) but in quite a different way from how he proposed. Stakeholder tenure could be used to privatise the tax and welfare system by re-distributing national or community income through dynamic property rights. A policy option that requires the use of the cashflow paradigm instead of the profit paradigm. Stakeholder tenure would create Democratic Capitalism, which provides A Third Way to work, or welfare for distributing national income.

Stakeholder tenure would provide a way of accelerating the introduction of universal capitalism and the two-income economy envisioned by Kelso. It would broaden the vision by including realty. The Kelsoian approach to expand the ownership of procreative assets through Leverage Stock Ownership Plans (LSOP's) was described as "Industrial Homesteading" in the 1970's by Ronald Regan²⁹ when he was Governor of California.

Industrial homesteading provides a technique for introducing the confluent development process to allow communities and their host nations to minimise the lost of surplus values through the paying of interest to external agents. It also provides the most cost effective and politically attractive way for developed nations to provide aid to developing and less developed economies. With this option available, there would appear no economic or political justification for the World Bank to

maintain its current mode of operations, which by lending to poor nations transfers income to the rich.

The least radical way for introducing ecologically sound money that could be used to finance LSOP's has been suggested by Lietaer (1989) who was a director of the Belgian Central Bank. He proposed that Central Banks should sponsor the introduction of alternative convertible neutral currency in parallel with their existing currency created by the force of law (ie. 'fiat' currency). Strategies for introducing autonomous de-centralised currencies are described in Bennello (1989).

For many, the alternative paradigms and strategies discussed in this paper may appear so radical that even to discuss them might threaten their own professional credit-ability. This has always been the way with the evolution of a new paradigm. For readers who are not firmly committed to the existing paradigm it may be of comfort to review just how radically social values and assumptions have changed over the last few centuries. Some changes which have occurred in different places and times have been set out in [Table 8. History and Vision of a Transforming Society](#). The table is only meant to be indicative so as to illustrate how the changes envisaged from adopting the paradigms and strategies discussed in this paper, are no more radical than the changes which have already occurred in society. However, if humanity is to sustain itself on our planet, the changes will need to be made much quicker than they have in the past.

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APPENDIX I

LEXICON OF THE CASHFLOW PARADIGM

Inherent in the cash flow paradigm are new concepts which require new words for their communication and these are marked with**. Some established words and their concepts are re-defined and these are marked*.

Only words used or related to the paper are listed below. A more complete list will be found in *Building Sustainable Communities*, Bennello (1988).

Accounting Return

A concept not used in the cashflow paradigm as it is ambiguous (see 'Profit')

Assets, Consumption**

Rights to property which represent material manifestations of living standards but do not in themselves contribute to the production of goods and services for exchange. (e.g. Personal possessions such as dwellings, automobiles, boats, planes, household goods, etc.)

Assets, Degenerate**

Assets created for the production of goods and services but which do not produce sufficient revenues over their operating life to pay, before taxes, their cost of creation and their operating costs.

Productive assets which do not become procreative** (see below).

All Consumption assets.

Assets, Procreative**

The means by which nature is made to yield its resources more abundantly without an increase in human exertion.

The non-human means for increasing the productivity of labour.

Assets used in the production of goods and services whose value exceeds the cost of acquiring, financing, and operating the asset before any taxes are paid.

Assets, Self-financing*

Assets that over their useful life produce a cashflow by *any means* to pay for the cost of its acquisition and operation. (All procreative assets must be self-financing but an asset would not be procreative if it relied on the cashflows from the asset being sold or used as collateral to become self-financing. eg. As may arise from investments in land)

Assets, Productive*

Tools, machines, structures, know-how, and organisations that produce goods and services. (All procreative assets are productive but productive assets may not become procreative. Non -procreative productive assets are described as 'degenerate' because they absorb economic values without raising living standards. ie. create "deficit values")

Assets, Viable

Procreative assets that are self-financing after interest and tax.

Cash flow Paradigm**

A framework of economic analysis based on cashflows but which accepts non -economic criteria for the allocation of resources to meet social and environmental requirements, especially at the *local* level.

Capital

A term not used in the cashflow paradigm as it has different meanings to different people. For example, it means money for non-technical people; shareholders funds, for accountants and 'the produced means of production' for economists (Refer to line 6 of Table 3). Unlike the cash flow concept of "procreative assets" there is no quantitative test to determine what is "capital" in the economic sense and so the concept has little value for rigorous analysis. From the point of view of the cash flow paradigm, the word "capital" is ambiguous even in the specialised economic sense as it can include: procreative, degenerate, and consumption assets.

Community return*

Surplus profit.

Investment returns after the investors time horizon.

Currency, Hard

Any commodity used as money or as a basis for backing paper money.

Deficit Values

The net cash cost of degenerate assets.

Development*

Increase in the quality of the physical and social environment, as determined by the individuals in the environment being developed.

Development, Confluent**

Development financed by the higher incomes, savings and consumption created by the development activities.

Development, Contrary**

Development financed by savings obtained from reducing consumption and/or by external borrowings.

Investment Return*

Cashflow obtained by an investor before his time horizon.

Economic Growth

Increase of net aggregate of all surplus and deficit values within a community.

Energy Dollars**

Unit of account denominated in kilo-watt hours.

A contract to provide economic value equal to a specified number of kilo-watt hours *by a specified date*. (ie. a "hard currency" which self-destructs after the maturity date.)

Bearer note convertible on demand to pay invoices from suppliers of energy denominated in kilo-watt hours.

Gains, Windfall

Increase in value of assets created by non-owners.

Pay back period

Time period during which an investment is expected to pay back all its costs.

Profit*

Incentive

An accounting term which cannot be legally defined or determined in practice on an unambiguous basis when technology is utilised and in most situations with inflation and/or when assets and performance contracts are involved which extend beyond the time period over which the profit is being determined.

Profit, Cash

Excess of cash received over the cash paid within a given time period.

Profit, Investment**

Cash surplus obtained over the operating life of a real asset.

Profit Paradigm**

A framework of economic analysis that assumes resources are mobilised and allocated according to the profit that they produce.

Profit, Super*

Super incentive. (Super profits do not create surplus profits when they arise before the investment "time horizon", see below.)

Profit, Surplus**

Surplus incentive.

Values in excess of the incentive required to bring forth an investment.

Community return.

Profit, Windfall*

The increase in cash profits created by increased demands for exclusive equity claims over assets. (ie. profits not created by the owner)

Time Horizon*

A time in the future after which investment decision-makers ignore the value but not the possibility of obtaining cashflows.

A future time beyond which no quantifiable economic incentive for making an investment is recognised.

The point in time, which separates investor, returns from community returns.

Self-governing**

Organisations that can govern themselves to meet the requirements of the people whose lives they affect. (By providing such people with the information and power to change the operations, structure, and personnel of the organisation.)

Social Accountability*

Accountability of organisations, such as local governments and businesses, to the individuals affected by their operations.

Social Capitalism**

A decentralised political system of self-governance characterised by the user ownership of housing and community facilities and by democratic local private ownership and control of the means of producing goods and services and the credits required to finance the construction of the means of production.

Stakeholders*

All those people who contribute to the operation of a business by providing cash as investors or customers, services as employees or suppliers, including infrastructure support (including, education, health, etc.) and such other people that may be affected by the business operations.

Tenure*

The implicit or explicit rules recognised by society for relating people to institutions (social tenure) and to property (property tenure).

Tenure, Duplex*

A system of tenure where there are two separate but related titles to property. In a Community Land Bank (CLB), one title reflects the value of land and the other the value of specific improvements constructed on the land.

Tenure, Dynamic**

A system of tenure which can change continuously with time according to predetermined relationships of the individual with property or social institution.

Two-income Economy

A term used by Louis Kelso to describe an economic system where all citizens have the right to receive property ("second") income directly as property owners, in addition to any income they may receive from their personal exertion.

Values, Surplus**

The pre-tax surplus revenue produced over the operating life of a productive asset after deducting all acquisition, interest and operating costs.

The cash surplus before interest and tax produced through the operation of a procreative asset.

The value of increased productivity as a form of "free lunch" produced without increasing human exertion.

Wealth

Value of assets, less liabilities

Net worth

Net economic value of property rights and obligations.

Wealth Producing Asset

A term which is not part of the cashflow paradigm but is used to introduce its concepts to those who may think of wealth as income. Economists since Adam Smith have used the word wealth to mean income. The index in most popular economic textbooks usually describes wealth in terms of both income and assets. The textbooks mostly use wealth to mean income in macro sense and net worth in a micro sense.

Wipeouts

The realised or unrealised loss in economic value created by decreased demand for an equity claim.

Windfall gains

Increase in value of assets created by non-owners.

APPENDIX II

COMMUNITY LAND BANKS (CLB's)

INTRODUCTION

By the editors of LAND FOR HOUSING THE POOR, Select Books, Singapore, 1983. Edited* by Angel, Archer, Tanhiphat, Wegelin.

"IX There are even alternatives to private or public land ownership.

Most of the articles in this book deal with incremental changes in the existing structures of institutions and do not postulate revolutionary upheavals as preconditions to effective action on the land issue. Yet it is worthwhile to contemplate far-reaching changes in the ways that we commonly perceive land ownership. The thinking along that dimension has unfortunately been rather sterile and there appears to be ample room for further development of new concepts and new ideas.

An interesting scheme for restructuring the ownership of land in residential communities is given by Turnbull. Turnbull criticizes the conventional methods of owning land and housing by private individuals and corporations on the one hand and by the public authorities on the other as either inequitable or inefficient or both. The rampant exploitation generated by private ownership of land is not mitigated by government efforts at taxation and regulation. Government ownership of land and housing, on the other hand, is grossly inefficient and many socialist countries are turning towards home ownership schemes to combat the growing inefficiencies.

Turnbull sees the value of introducing a new duplex tenure system to remedy this situation. In this system, the ownership of structures and improvements on land is separate from the ownership of the land itself, and the land is collectively owned by the community as a whole. Each individual owns his house as well as shares in the community land corresponding to the size of his plot. He is free to sell his house and his shares, but his shares are sold to the community land bank, which in turn sells them to the new buyer at a higher price. In this manner, the community captures the increased land value, using the proceeds for infrastructure development and other community improvements. As only individual community members are allowed to own shares in land, additional revenue is generated from the leasing of community land to commercial and public enterprises. Turnbull discusses a number of mechanisms for creating cooperative land banks, the simplest one being the creation of a new community on virgin land. In areas occupied by tenants or squatters, he proposes a dynamic tenure scheme whereby, through regular payments, the tenants gradually gain equity to the land and structures they occupy and in the long run become owner-occupiers. Turnbull believes that using such mechanisms, communities varying in size from 3,000 to 50,000 people can be self-financed and self-managed, improving gradually over time in an equitable manner without resorting to central government subsidies.

The thinking on appropriate forms of land ownership and land tenure systems has by no means been exhausted, and there are inherent problems in existing systems which may require fundamental changes before they can be adequately resolved. Our current perception of land tenure is inherently bound up in the historical period we live in and in the existing relationships within the societies of which we are a part. Both are in a process of dynamic change and do not contain, in the last analysis, any patterns or rules of a permanent nature. As these patterns change, concepts and ideas which were considered completely unrealistic may emerge as new paradigms for a new order".

* Shlomo Angel is Professor of Human Settlements Planning and Raymon W. Archer is Associate Professor of Human Settlements Planning at the Asian Institute of Technology, Bangkok, Thailand. Sidihijai Tanphinphat is Deputy Director, Office of Policy and Planning, National Housing Authority of Thailand. Emiel A. Weglin is with the Social Infrastructure Division of the Asian Development Bank.

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Table 1

DIFFERENCES BETWEEN PARADIGMS

	AREA OF DIFFERENCE	PROFIT PARADIGM	CASHFLOW PARADIGM (HOLISTIC ECONOMICS)
1	Activities which provide the basis for formal economic study	Production and exchange of goods and services	Production and exchange of goods and services AND THE TRANSFORMATION AND EXCHANGE OF ASSETS AND LIABILITIES
2	Sources of increased production or productivity	Principally labour	PRINCIPALLY MACHINES STRUCTURES & ORGANISATIONS

3	Sources of private economic value.	Production	Production, TENURE AND CONSUMPTION
4	Social objectives	Full employment, higher standards of living	ECONOMIC INDEPENDENCE, PERSONAL FULFILLMENT
5	Criteria for resource allocation	Profit	CASHFLOW
6	Notion of 'Capital Goods'	Various, imprecise and confusing, e.g. 'Income producing assets', 'Produced means of production'.	THE MEANS BY WHICH NATURE IS MADE TO YIELD HER RESOURCES MORE ABUNDANTLY - EVIDENCED BY THE MEANS OF PRODUCING A POSITIVE NET CASHFLOW.
7	Real capital formation	Past savings or consumption forgone	Past savings OR FUTURE SAVINGS AND NEW CONSUMPTION.
8	Basis for economic management	Monetary and fiscal policies	Monetary, fiscal AND TENURE POLICIES BASED ON ECOLOGICAL PRINCIPALS
9	Concept of wealth	Various and conflict-ing, e.g. 'Income', 'Income producing ability'.	VALUE OF ASSETS LESS LIABILITIES
10	Criteria for economic development	Increased income per person	INCREASE IN THE QUALITY OF THE SUSTAINABLE SOCIAL AND/OR PHYSICAL ENVIRONMENT
11	Structure of: money, banking, corporations, ownership & control	Assumed not to vary from some unspecified model	BASED ON CURRENT REALITY WHICH MAY BE SUBJECT TO CONTINUOUS CHANGES
12	Human behaviour	Assumed model (Refer to Table 2)	BASED ON PSYCHOLOGICAL PROFILE (Refer to Table 2)

Table 2

DIFFERENCES BETWEEN 'ECONOMIC' AND REAL PEOPLE

	<u>'ECONOMIC' PEOPLE</u>	<u>REAL PEOPLE</u>
1	Unlimited appetite	Appetite determined and limited by the necessity of maintaining the organism in a state of dynamic equilibrium.
2	Completely informed	Reduces, condenses, summarises (and thus necessarily loses) information, in addition, an 'imperfect' communications network in the environment also restricts and attenuates the flow of information
3	Consistently orders his/her preferences between outcomes over time.	Does not consistently order his/her preferences (i.e., changes his/her mind over time, may prefer A to B, B to C

		but C to A.
4	Maximises something (usually one thing).	Attempts to optimise with respect to a large number of criteria (needs).
5	Competitive	Sometimes competitive, sometimes collaborative; usually both.
6	Requires a value system only in order to provide a criterion against which to maximise, e.g., profit, utility, prestige, power.	Requires a value system in order to provide a framework for the ordering of needs, the selection of information and the weighing of multiple decision criteria.
7	Not explicitly related to the world as an element in interactive system and remains unchanged as a result of any interaction.	Stands in an interactive cybernetic relationship to his/her community and environment, and is changed as a result of any interaction.
8	No significant differences between individuals.	Differences between individuals are significant and important.
9	No limits on information processing capacity, so is unaffected by differences in rates of change.	Limited information processing capacity so prefers slow rates of change, i.e. nearly stable systems.
10	Needs are simple and few	Needs are simple and many

This table was prepared by Alexander J. Wearing, Professor of Psychology at the University of Melbourne. It is based on a table presented in his paper Growth as an Imperative, which was included in a Plenary Session Symposium on *Economic Growth: Magnificent Obsession* at the 44th Australian and New Zealand Association for the Advancement of Science Congress in Perth, Australia, August 17th, 1973.

Table 3

EXISTING V's ECOLOGICAL CORPORATIONS

	FEATURE	EXISTING CORPORATIONS	ECOLOGICAL CORPORATIONS
1	Corporations	Perpetual life	Limited life (25 years)
2	Ownership rights	Static and monopoly	Dynamic and co-ownership
3	Owners	Located anywhere	Mainly local
4	Creation of corporations	Entrepreneurs & investors	Entrepreneurs, investors and mature fecund corporations
5	Size of corporations	No inherent limit by investors	Limited by investors need for payback of investment and return.
6	Number	As at present	Many more smaller corps.
7	Corporate governance	Limited to shareholders but mostly internally self-determined	Competitively and dynamically determined by stakeholders
8	Regulation	By government	By stakeholders and so by local requirements

Table 4**EXISTING V's ECOLOGICAL MONEY**

	FEATURE	EXISTING MONEY	ECOLOGICAL MONEY
1	Money created by:	Government central bank	Private local banks
2	Interest rates determined by:	Government	Competition
3	Volume of money determined by:	Government and transactions by foreigners	Competition established by local demands
4	Basis for money	Not defineable	Defined in terms of local product (s)
5	Choice of currency	Government monopoly	Competing private currencies
6	Inflation controlled by:	Government 'blunt' policy instruments	Competition between currencies
7	Structure of money	Perpetually compounding interest	Limited life so negative interest
8	Economic bias 1 ("uneven playing field")	Against those who need money	Neutral between lenders and borrowers
9	Economic bias 2 ("uneven playing field")	Against small borrowers	Minimises economies of scale
10	Economic bias 3 ("uneven playing field")	Distorts relative value of domestic resources	Neutralised by competing currencies

Table 5**METHODS OF SOCIAL COMMUNICATION & CONTROL**

	METHOD	SENSORY	SEMIOTIC	COMMAND	MARKET
1	Dependent upon:	Instincts	Cognitive processing of signs & symbols	Speech	Numeracy
2	Basis of operation	Individual perception of other people's needs and responses	Culturally determined rules of behaviour of people and social institutions	Requests and orders through a chain of command	Quantification of needs and responses in monetar values
3	Examples	Mother/child; families; tribes; partnerships; work groups; cabals	Ownership & use of property. Dress & behaviour, attributes of tenure in government, business, Unions,	Military organisations, corporations and bureaucracies	Between individuals, enterprises and other public and private institutions of market economies

			Church & Sport		
4	Type of operations	Intuitive and spontaneous.	Transformation and change in tenure relationships of people to property or social institutions.	Command	Production and exchange of goods and services and negotiable assets
5	Motivating forces	Instincts	Social conditioning	Respect/use of power	Materialism
6	Means of communicating needs	Sensory	Aggregate behaviour, e.g. usage, migration, votes and other actions of people	Requests	Price
7	Limits of communication.	Small numbers & short distances	Non-directive.	Amount of information	Non monetary characteristics
8	Limits of co-operation	Resources available	Requirements of minority	Time of response	Quality
9	Other limits	Personal relationships	Not specific in servicing needs	Lack of choice, flexibility & sensitivity	Insensitive to non-economic values and needs
10	Benefits of method	Speed of reaction	Managing the quality of social and physical environments	Precision of execution on a large scale	Speed and precision on global scale with sensitivity to preferences in large numbers

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Table 6

EXISTING V's ECOLOGICAL ECONOMY

	FEATURES	EXISTING ECONOMY	ECOLOGICAL ECONOMY
1	Geographic diversity.	Uniform system within nation based on historical heritage and/or ideology and/or theories of economists.	Diverse types of systems within a country determined by host bio -region.
2	Consumption of goods and services.	Not related to environmental opportunities & costs.	Determined by environmental opportunities & costs.
3	Economic management	Subject to government intervention	Self-correcting from stakeholder checks & balances
4	Structure of banking	Centralised	De-centralised
5	Money (Refer to Table 4)	Not related to environment	Defined in terms of output produced locally

6	Type of property rights	Perpetual, static, monopoly ownership rights to property.	Time limited, dynamic co-ownership rights to property.
7	Acquisition of property rights	By investment & inheritance	By investment, inheritance and interest as a stakeholder
8	Ownership of land & buildings	Unlimited by area, size and over time	Limited to use of private improvements by individual
9	Duration of ownership	Not limited	Limited by stakeholder status
10	Ownership of land, housing and the means of production and exchange	No limit to extent or nature of ownership	Local ownership and control automatically maintained by time limited dynamic stakeholder property rights.
11	Corporations (Refer to Table 3)	Perpetual life with static monopoly tenure rights	Many more locally owned but with limited life dynamic co-ownership rights.

Table 7

GLOBAL GOVERNANCE & POLITICAL ECONOMY

Governance level	Principle role	Other roles	Source of funding
Global governance	Global commons	Co-ordinating political structures in regional bio-spheres	Green taxes from regional bio-spheres
Regional bio-spheres	Regional environments	Co-ordinating economic structures in regional bio-spheres	Green taxes from bio-regions
Bio-regions	Bio diversity, & structure of economic & political institutions	Co-ordinating infrastructure services in urban centres	Green taxes from degrading enterprises, urban centres, & land banks
Urban centres	Community infrastructure services	Income distribution between land banks	Taxes from land banks
Land banks	Income distribution	Health, education and welfare services	Rents from enterprises & gains from site trades
Neighbour-hoods,	Social & cultural support	Substitution of paid services	Non-profit & voluntary contributions

villages			
Enterprises	Wealth generation	Fulfilling work	Self-financing
Family	Personal and social development	Community and cultural development	Work and/or dividends, rents, profits etc.

Governance roles allocated on the basis that no level of government should carry out any function, which is better undertaken at a lower level.

Sources of funding based on a cascade system of taxation where each level of government taxes the next lower level, which it represents. No taxes on individuals, or the profits of enterprises. Redistribution of income achieved through the private sector from the democratic distribution of income producing assets and cross-subsidisation through land bank rentals, property trades and provision of welfare services.

Table 8

HISTORY AND VISION OF A TRANSFORMING SOCIETY

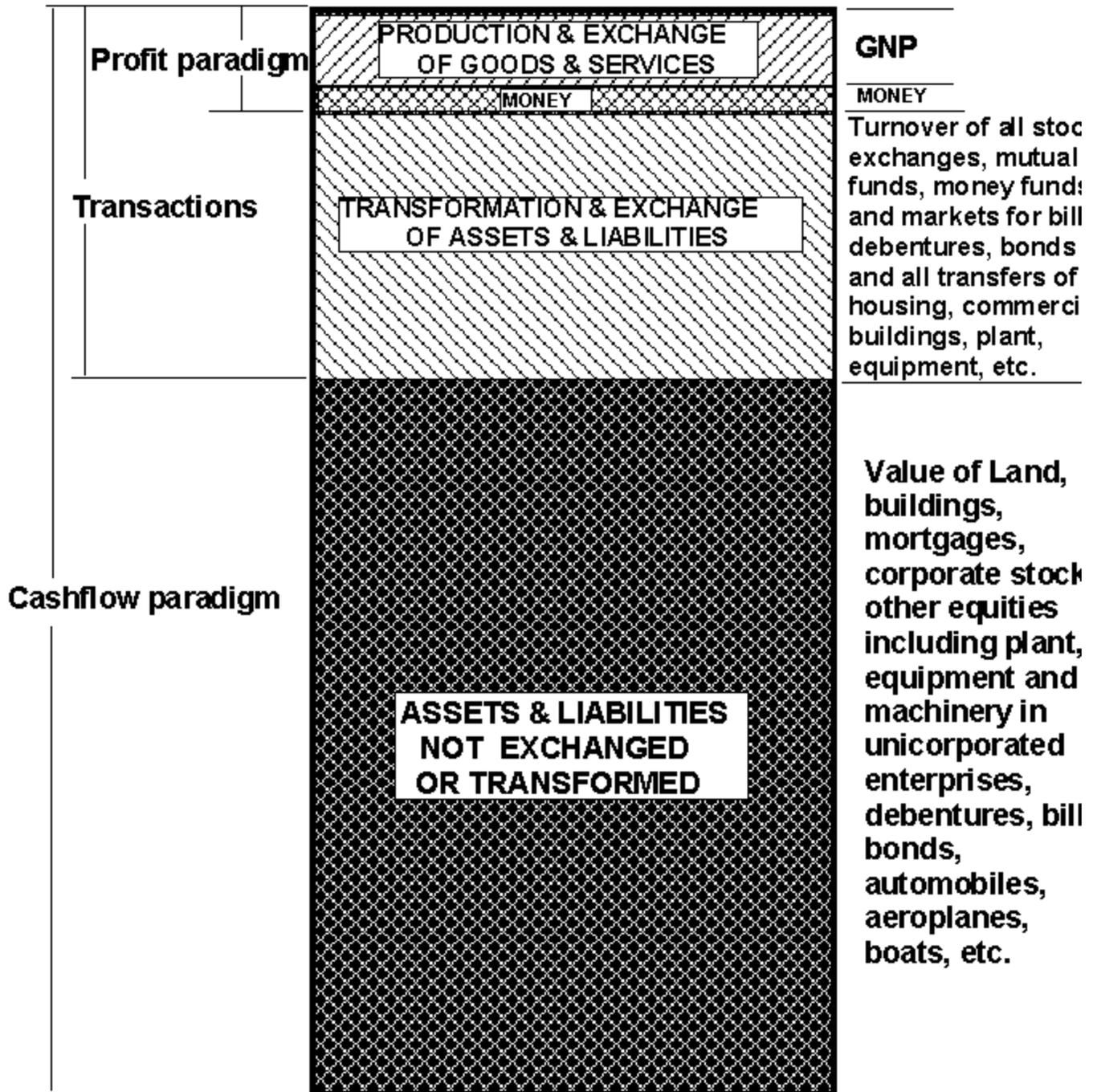
DOMINANT CHARACTERISTICS OF SOCIETY AT DIFFERENT PERIODS

	FEATURE	PAST	PRESENT	FUTURE
1	People treated as	Property	Resource	Potential
2	Role of women	Breeding	Cheap labour	Full partners
3	Purpose of work	Sustenance	Income distribution	Fulfillment
4	Methods of distributing national income.	Employment	Employment & government transfers	Employment & transfer of property income
5	Relationship to the environment	Subservient	Dominant	Stewardship
6	Natural resources	Use	Exploit	Sustain
7	Source of land acquisition	Conquest or inheritance	Purchase or inheritance	Use
8	Period of land ownership	Time of use	Perpetual	Time of use & so limited
9	Source of business ownership	Start up or inheritance	Purchase/start up & inheritance	Start up, invest-ment and stakeholder rights
10	Business owners	Proprietors	Shareholders	Stakeholders
11	Period of business ownership	Life of owner	Perpetual	Limited

12	Property rights	Discretion of Sovereign	Static, monopoly and perpetual	Dynamic co-ownership and time limited
13	Structure of business	Paternal and centralised	Heirarchic and centralised	Co-partnership & decentralised
14	Monopolies	Granted to private interests by Sovereign	Prohibited or controlled by Government	Eliminated by time limited dynamic rights
15	Institutions	Perpetual	Evolving	Dynamic
16	Basis of money	Commodities	Artificial	Goods or services
17	Creation of money	De-centralised competitive basis by private sector	Centralised government monopoly	De-centralised competitive basis by private sector
18	Cost of money	Cost of storage & quality control	Positive interest rate	Negative interest rate
19	Allocation of resources	Command & control	Markets	Benevolence, semiotics & markets.
20	Value system	Absolute	Materialistic	Humanistic
21	Distribution of economic values	Autarchic	Market forces	As to contribu-tion & need
22	Accumulation of economic value	Limited by political power	Not limited	Limited by time & dynamic rights
23	Economic & political power	Centralised in Sovereign	Government & big business	Decentralised to communities.

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HOLISTIC ECONOMICS



Profit and lost statement (Income and Expenses)



Balance sheet (Assets and Liabilities)



Funds flow statement (Source and Application of money)

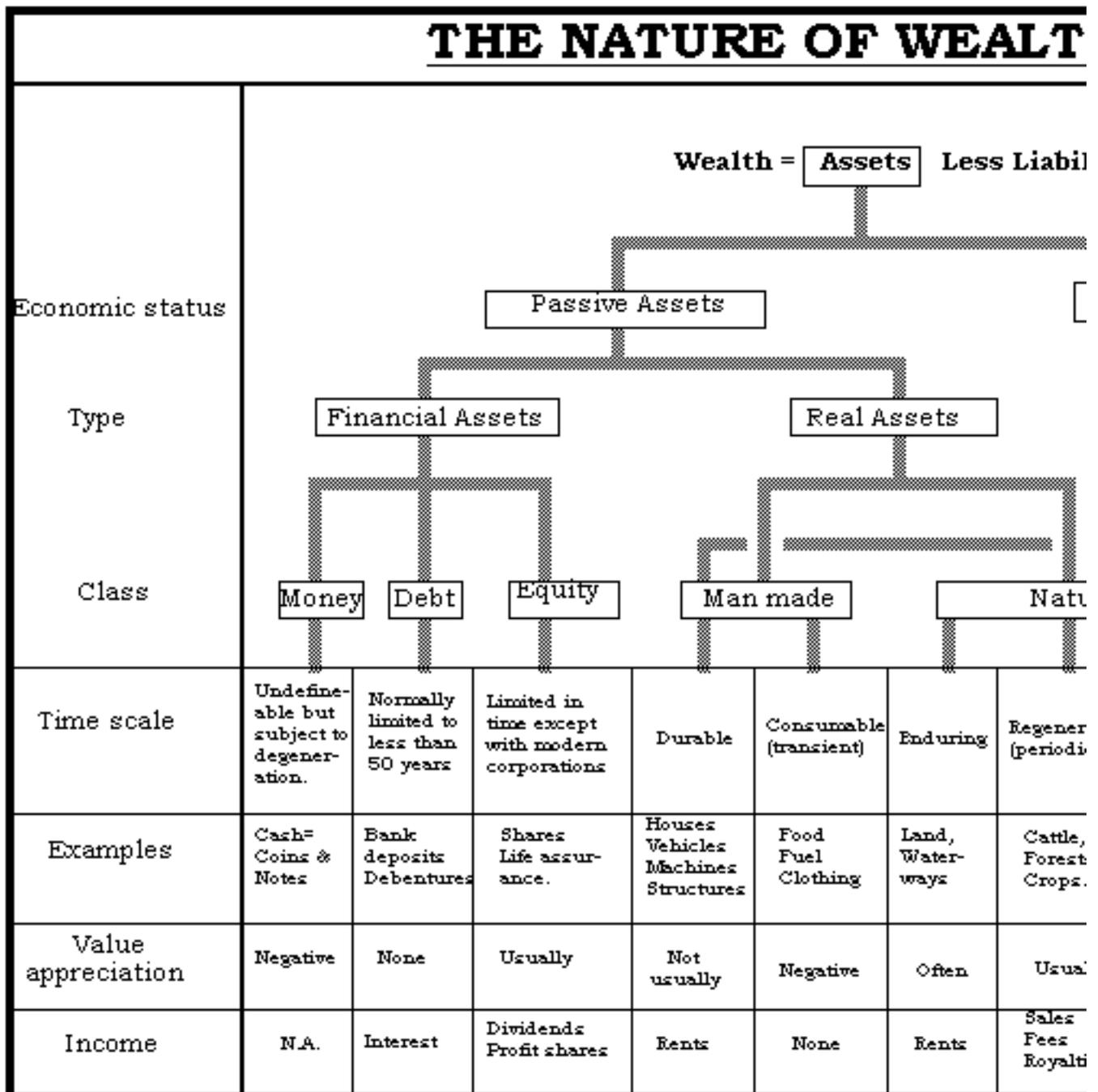


Figure 15

Governance of Mondragón Worker Cooperative

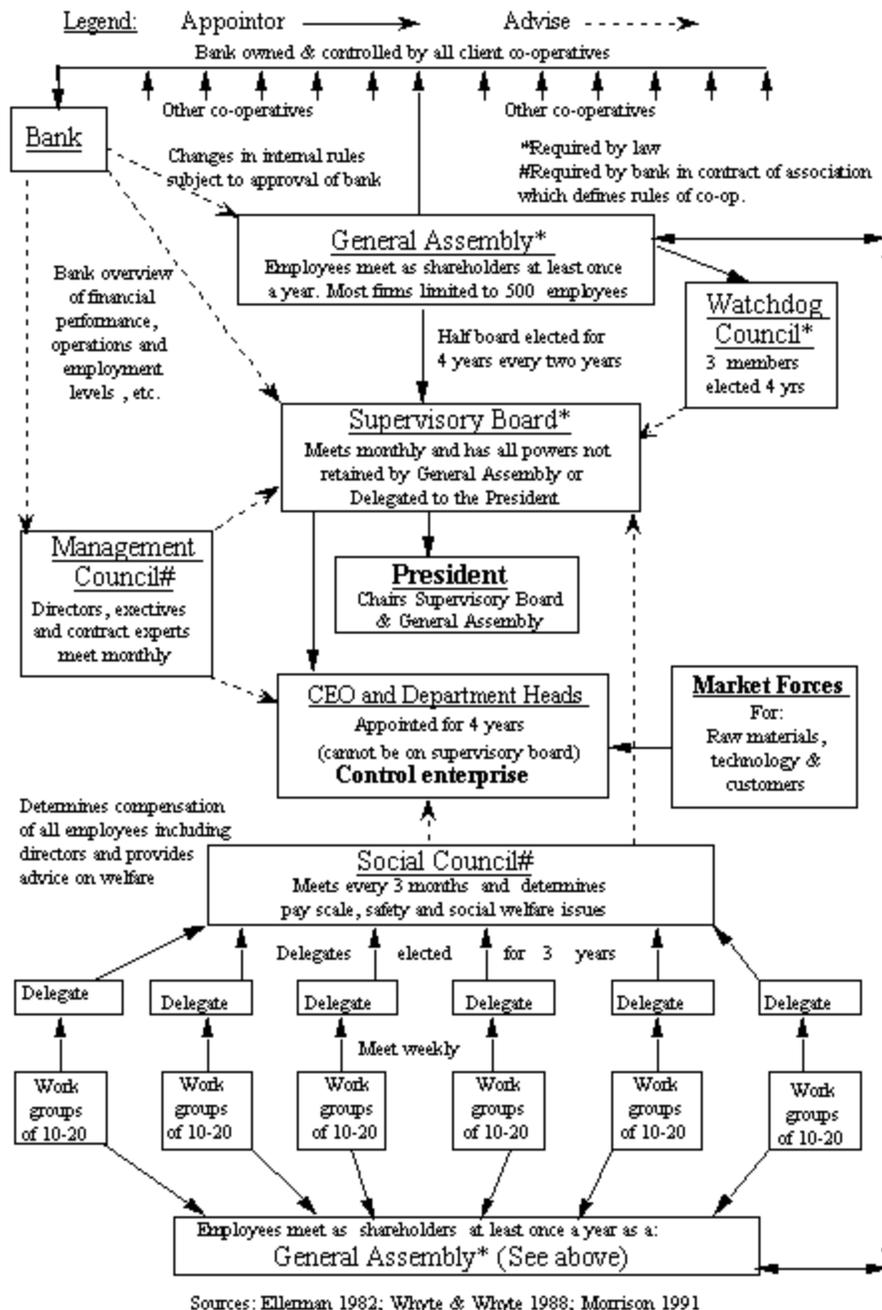


Figure 16

Mondragón Cooperative Social System: with dates of establishment

SURPLUS PROFITS

[With a 5 year Time Horizon]

\$100 Investment returning \$30 after tax cash per year for:

5 Years would yield:

- 50% cash profit
- Discounted Cash Flow Return of 15.2%.

10 Years would yield:

- 200% cash profit
- Discounted Cash Flow Return of 27.3%

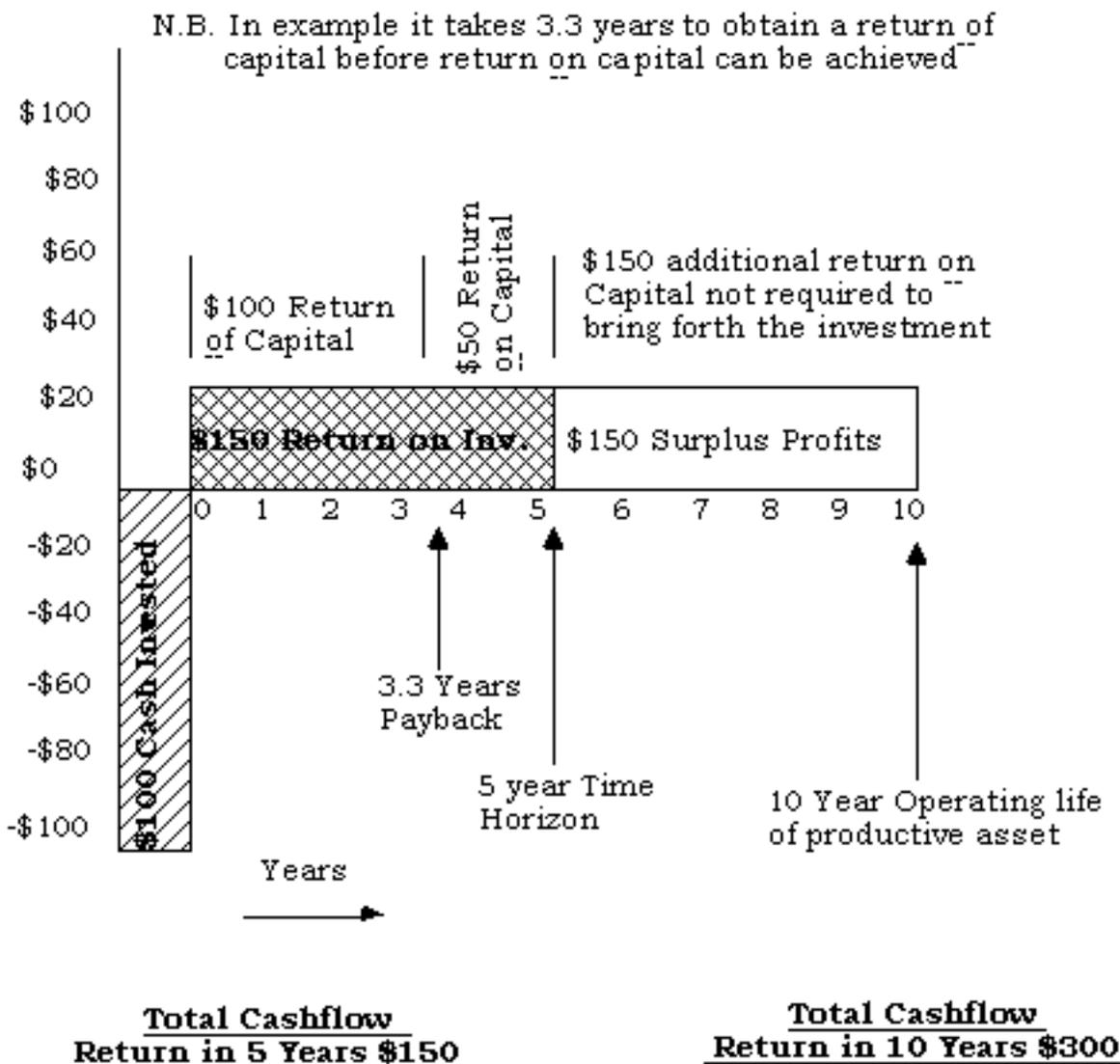
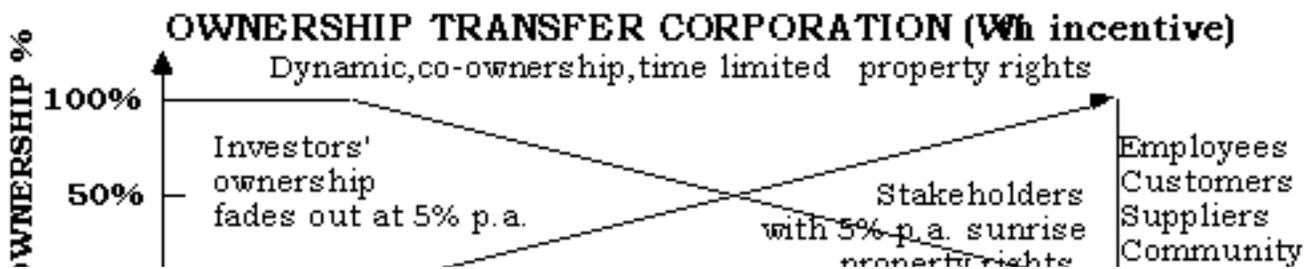
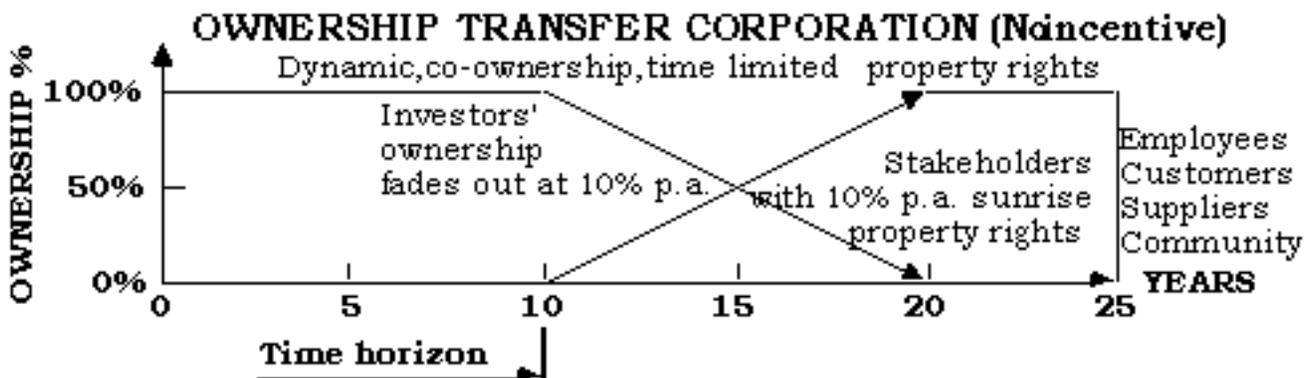
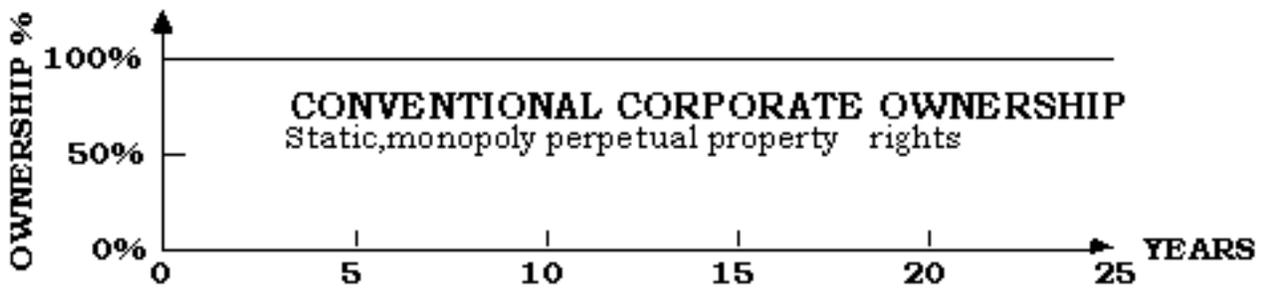
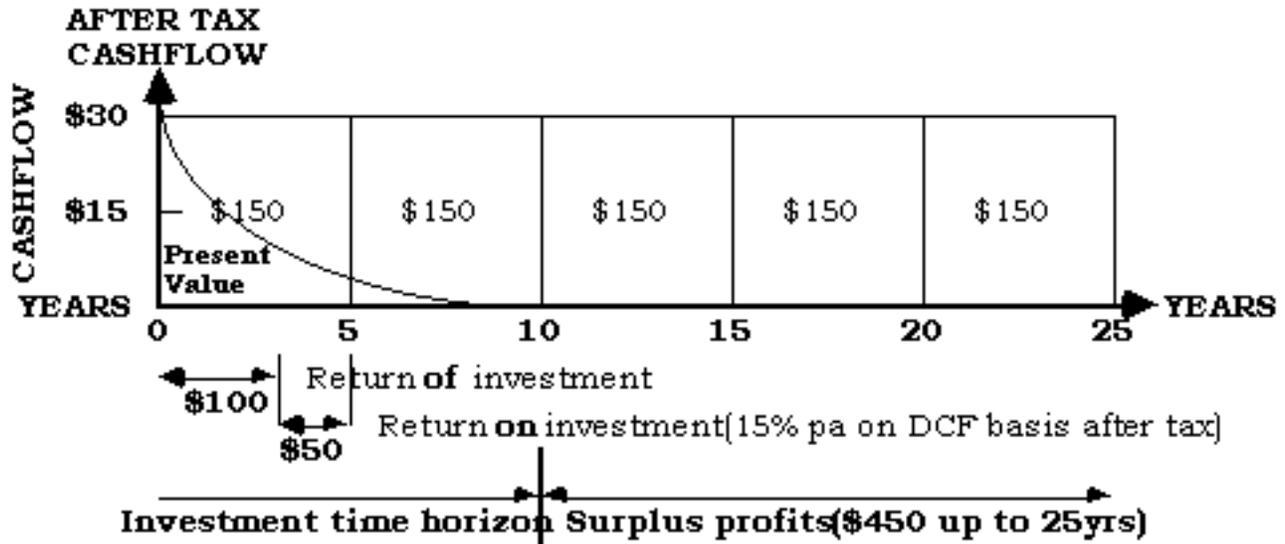


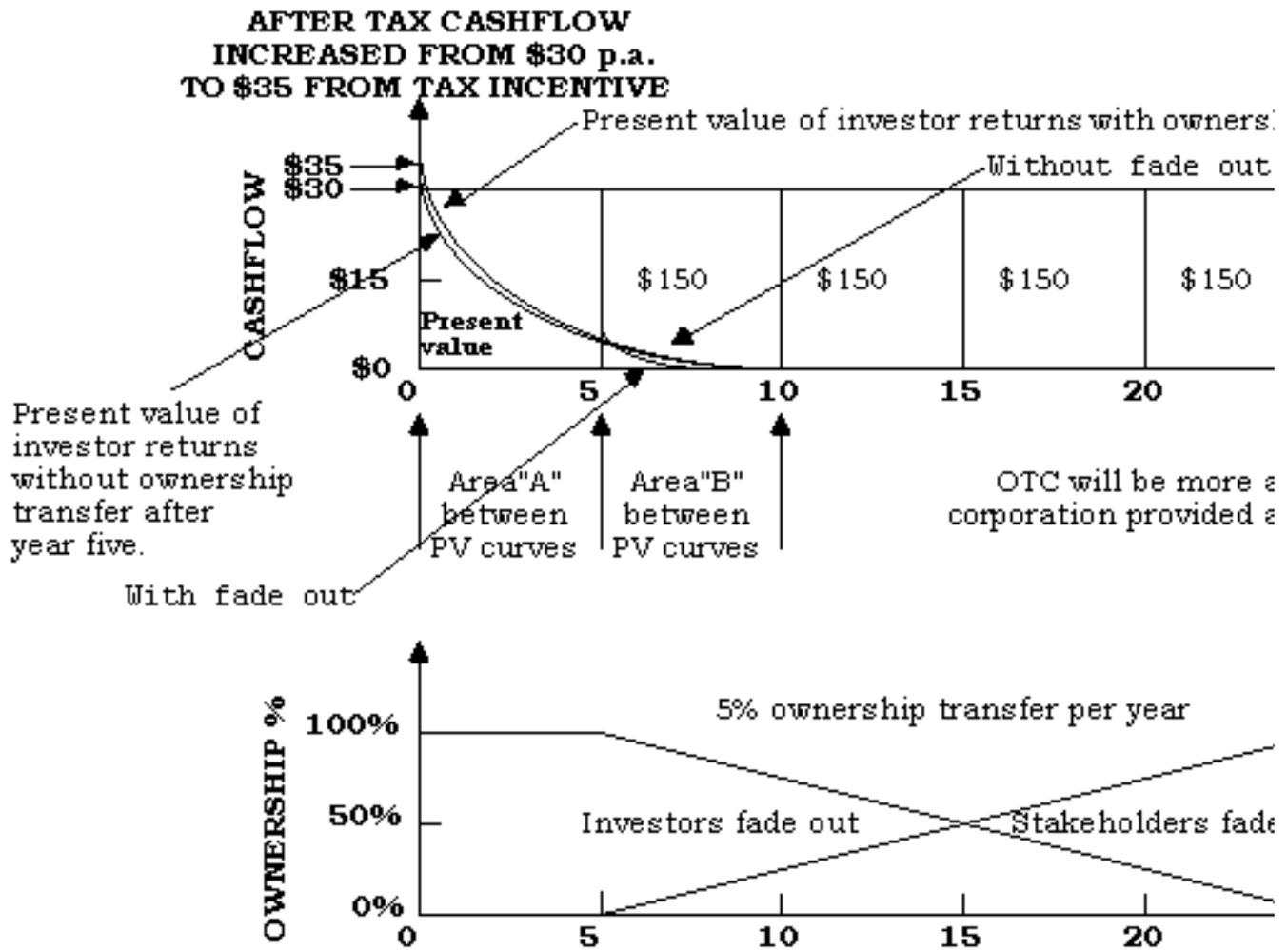
Figure 4

AFTER TAX RETURNS FROM INVESTMENT OF \$100



OWNERSHIP TRANSFER CORPOR

(With tax incentive for conversion
from conventional corporation)

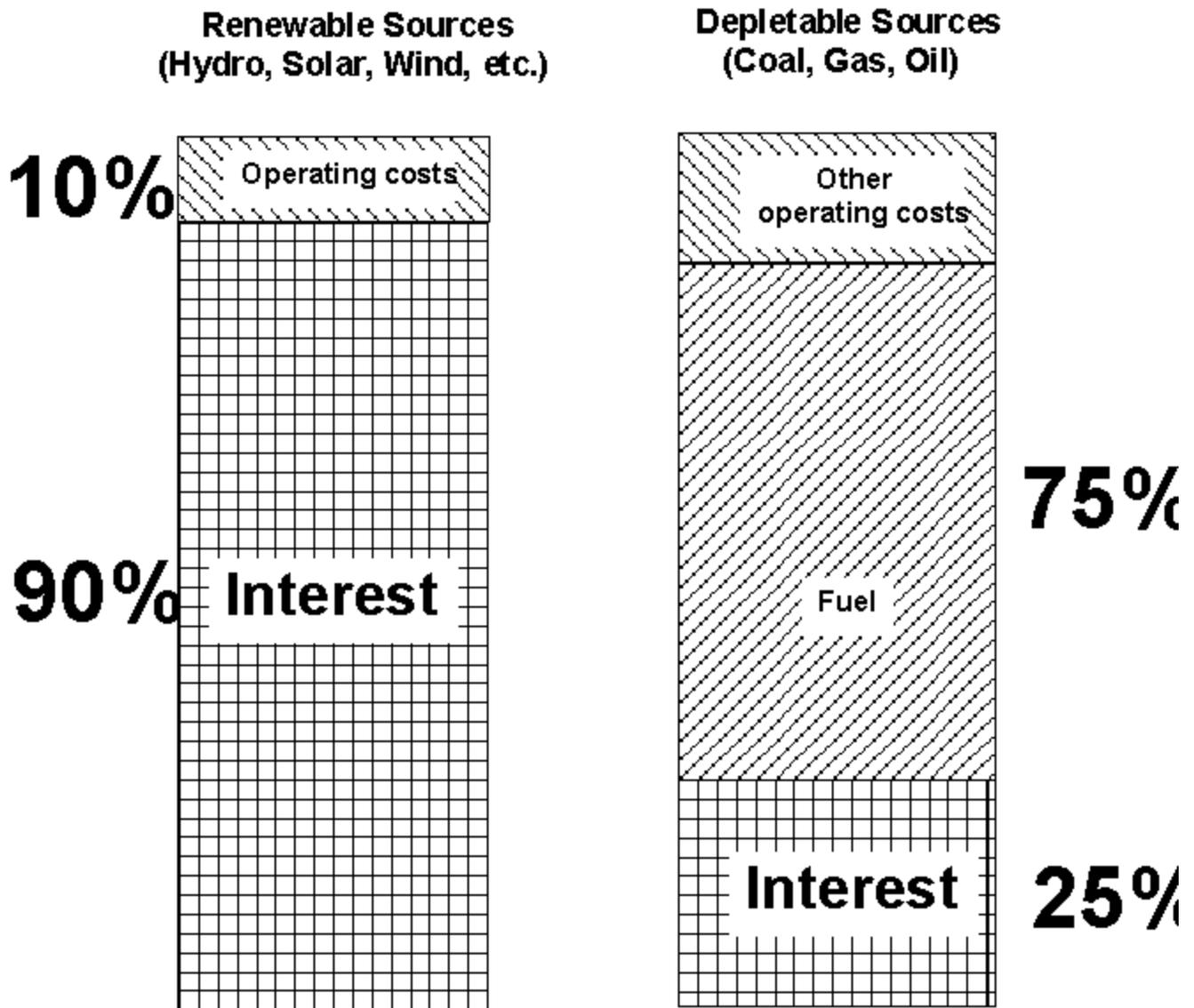


N.B. TIME HORIZON NOT RELEVANT FORMAKING OTC's ATT

Figure 6

RELATIVE COSTS

Electric Power Generation



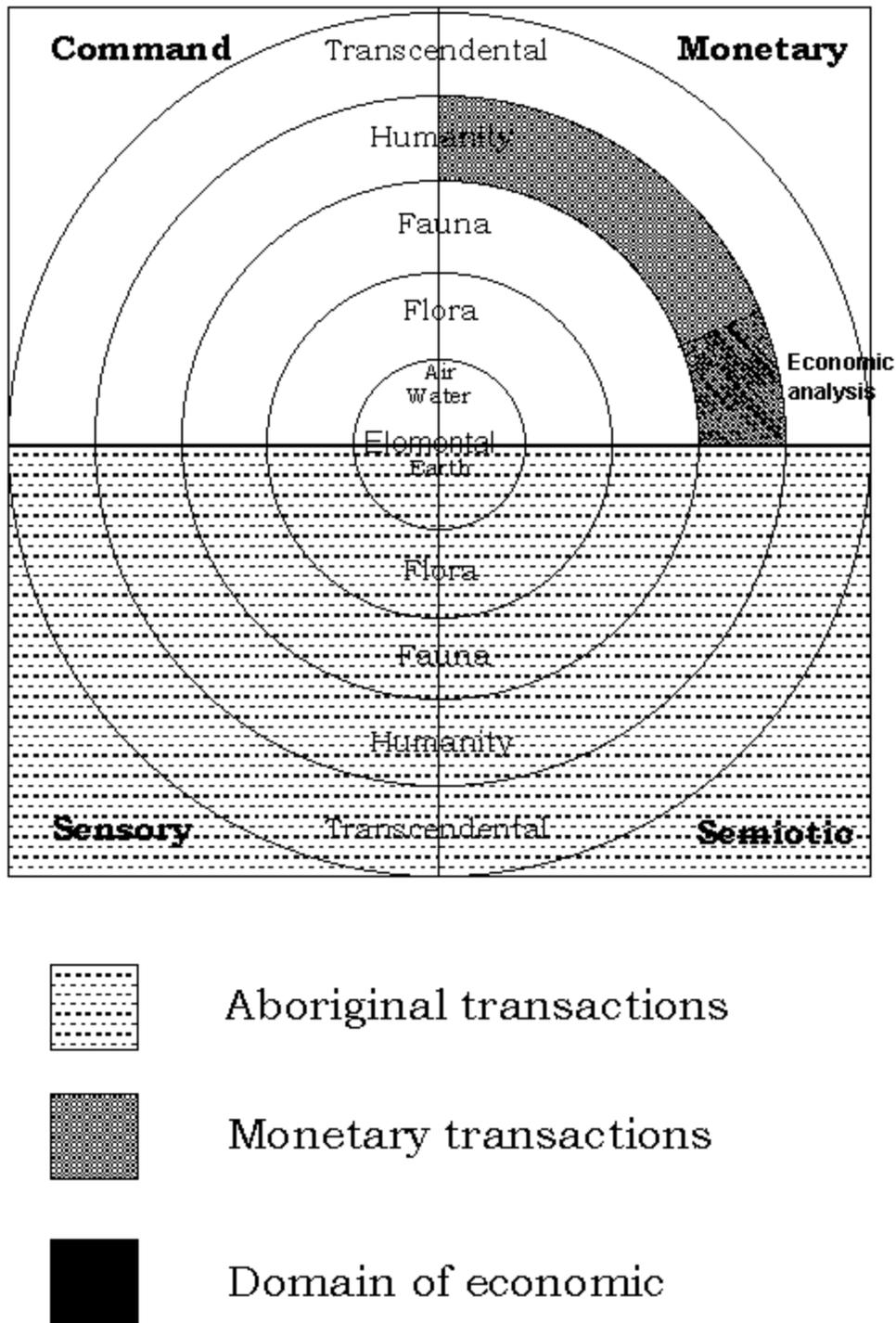
**ELIMINATING THE COST OF INTEREST
THE COST OF RENEWABLE POWER BY**

**(POWER FROM DEPLETABLE SOURCES
BECOMES 7.5 TIMES MORE EXPENSIVE.)**

FIGURE 7

SPHERES OF TRANSACTIONS

Types of social information and control systems



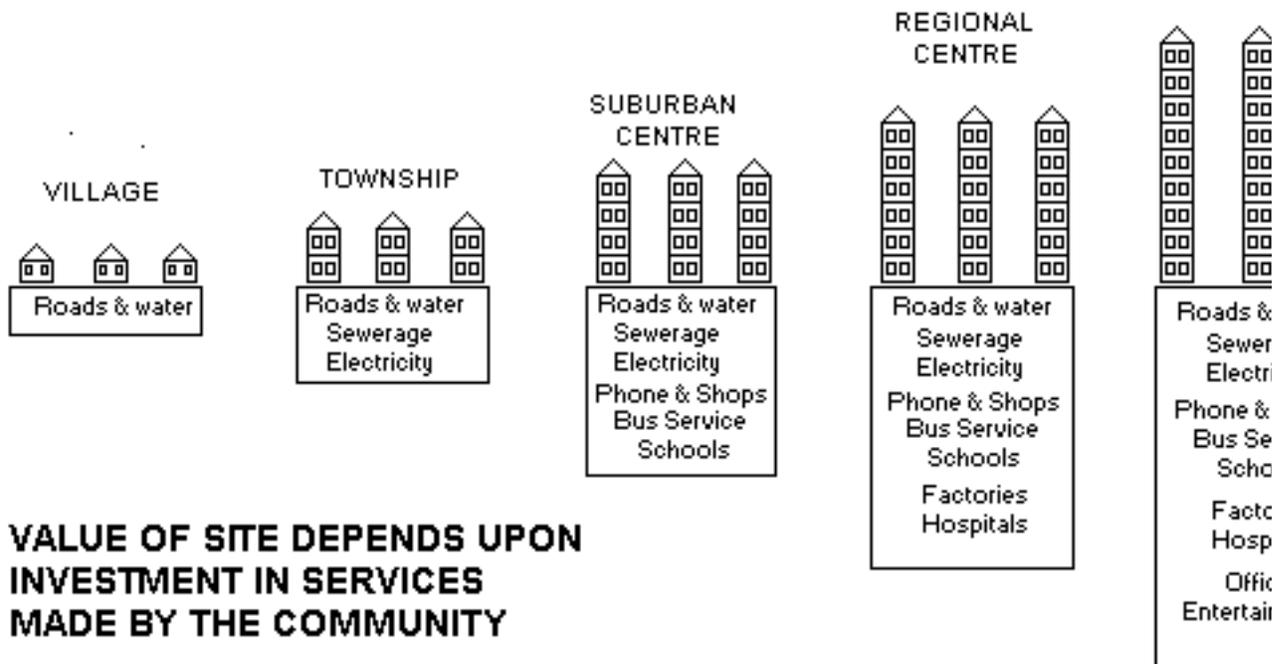
Figure

Figure 13

DUPLEX TENURE

VALUE OF URBAN PROPERTY HAS TWO COMPONENTS:

1. SITE OR "LAND" VALUE
2. VALUE OF IMPROVEMENTS



Two different types of property rights are required to create efficient and equitable markets for the private ownership of urban property:

1. Dynamic Lease (DL) or "Strata Title" for improvements on the site/land
2. Shares in the co-operative which owns all sites/land in the community.

Dynamic Lease (DL) "Strata Title".
Captures value of improvements

Value of DL determined by n value of improvements, (not windfall gains from commun

Shares in Community Land Bank (CLB)
Captures value of site ("Land Title")

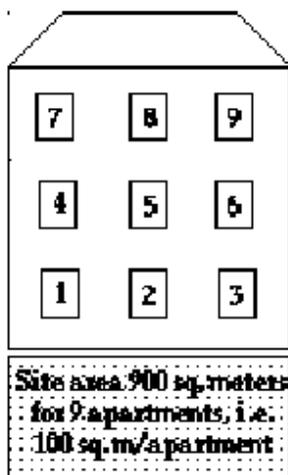
Issue value of shares by CL determined by average marl for all community land. Buyt price from vendors of PL's proportionally discounted fo not paid over a 25 year perio

CLB captures back windfall gains from community investment from discount on

Figure 14

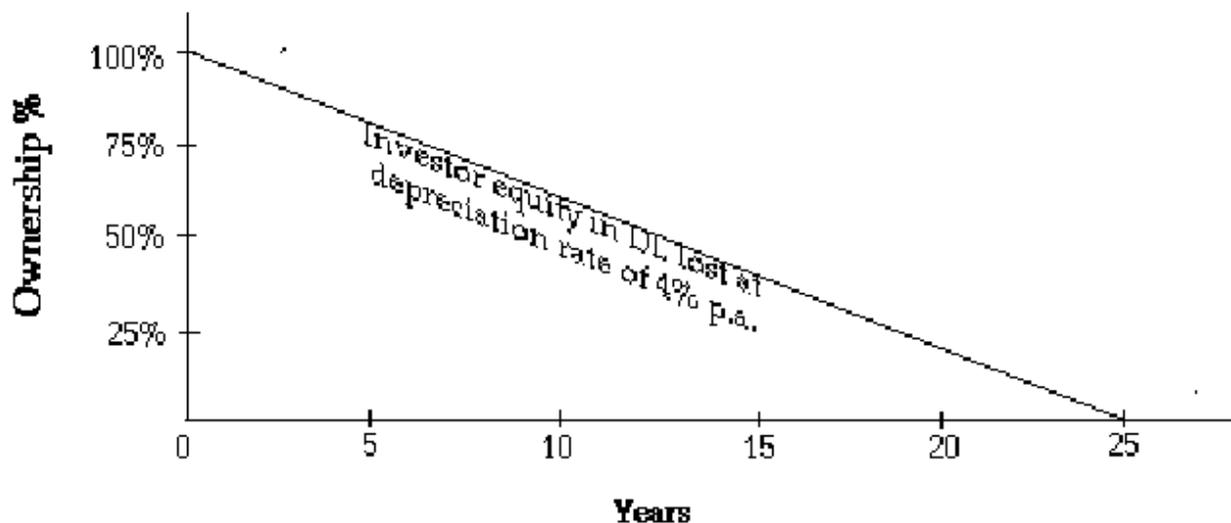
DYNAMIC DUPLEX TENURE

Investment accommodation



DYNAMIC LEASES/ STRATA TITLES	Nine Dynamic Leases (DL's) (One for each apartment) initially owned by investor
SHARES IN CLB	900 shares (100 shares/apartment) held by Community Land Bank in trust for tenants.

Only residents (not being a corporation) can own and vote shares in the CLB. A non resident investor would obtain NO shares in the CLB. Investor's equity in resale value of each DL would be lost at the tax depreciation rate of 4% p.a. (25 year tax life). As tenants acquire co-ownership resale interests of their DL at 4% p.a. without cost they have the incentive to minimise repair and maintenance and/or accept these costs.



Each tenant acquires co-ownership interest in 100 shares of CLB at the rate of 4% p.a. If the tenant moves out after 5 years he/she retains a 20% co-ownership interest in each of the 100 shares with subsequent users acquiring the residual co-ownership interests.

Figure 8

CHANNELS OF SOCIAL INFORMATION AND CONTROL:

Comparison Between Different Societies

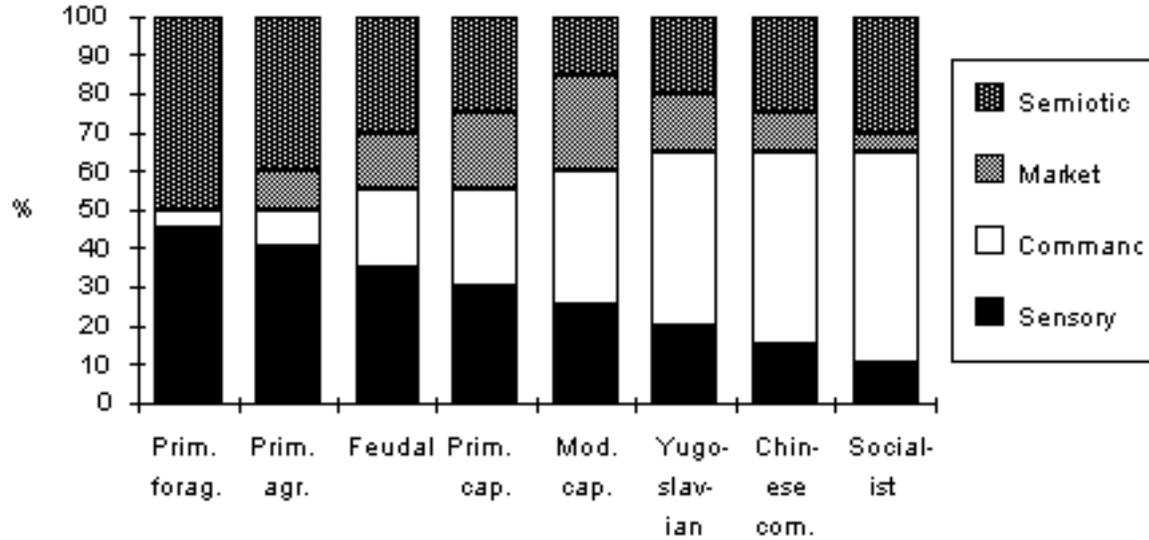


Figure 9

SOCIALIST GOVERNANCE

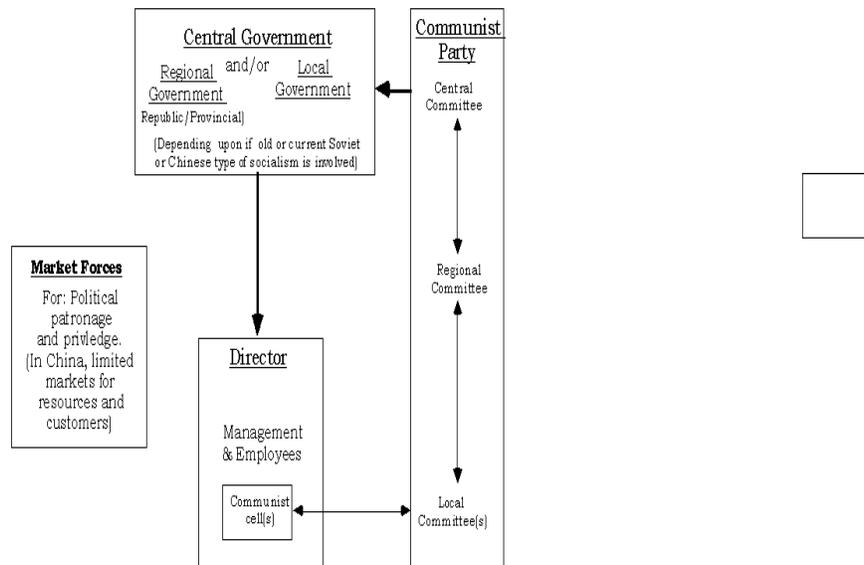


Figure 10

ANGLO GOVERNANCE

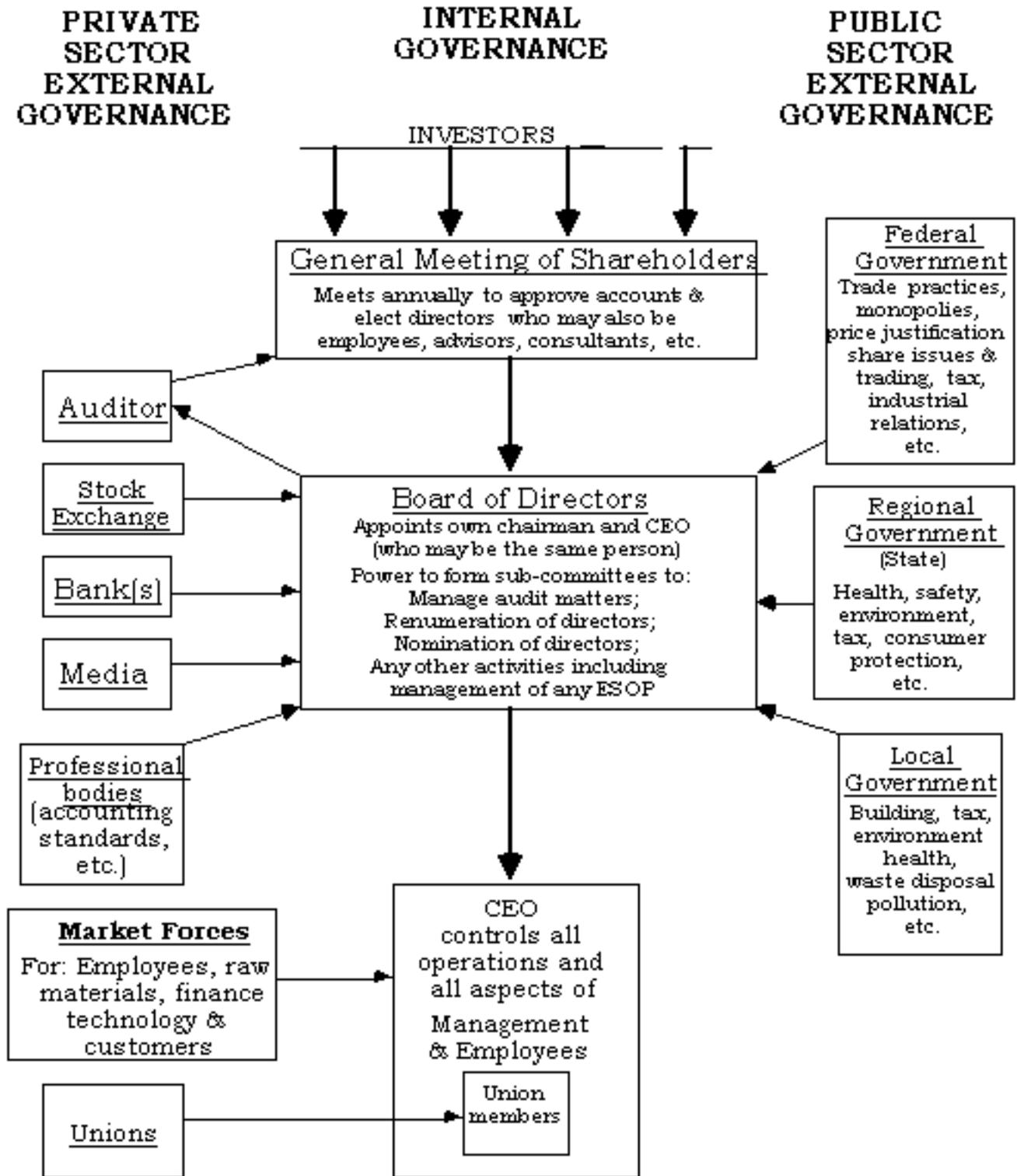
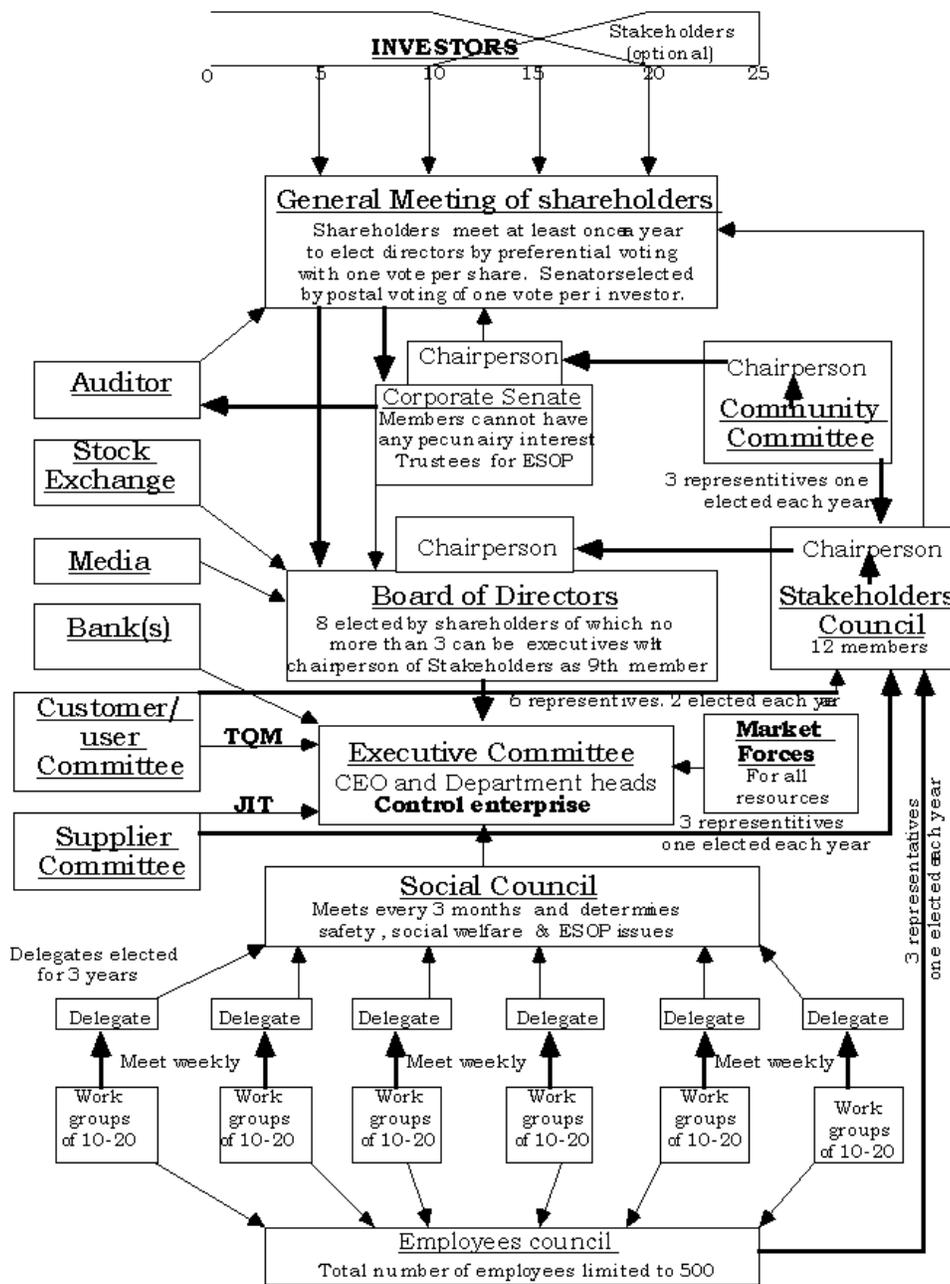


Figure 11

STAKEHOLDER GOVERNANCE



Chairman

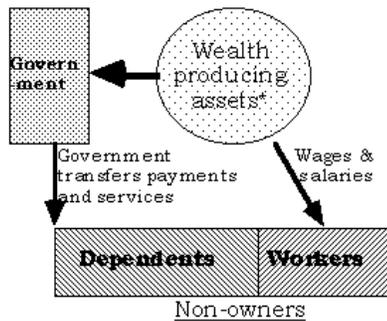
Figure 12

WEALTH DISTRIBUTION

THROUGH:

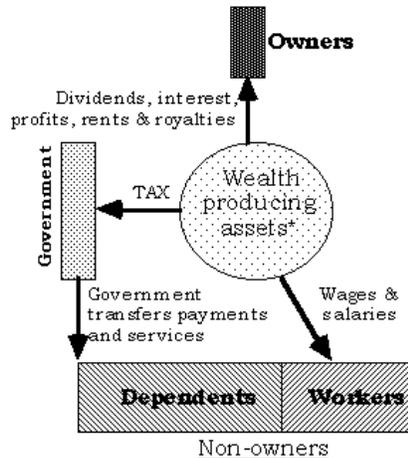
SOCIALISM

NO INDIVIDUAL OWNERS OF WEALTH PRODUCING ASSETS*



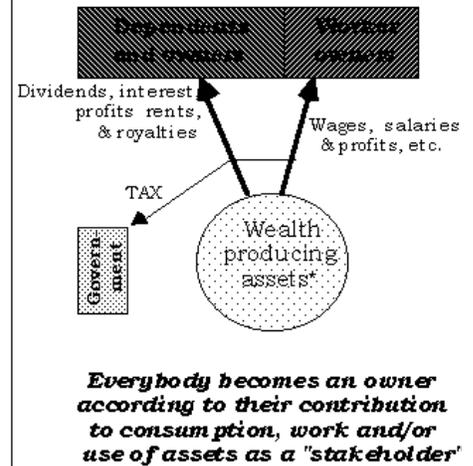
CONTEMPORARY CAPITALISM

LESS THAN 10% OF INDIVIDUALS OWN OVER 90% OF WEALTH PRODUCING ASSETS*



DEMOCRATIC CAPITALISM

ANY 2% OF INDIVIDUALS OWN LESS THAN 10% OF WEALTH PRODUCING ASSETS*



*Wealth producing (procreative) assets all create more value than they cost and so are all self-financing. Any person can own self-financing assets provided they have access to credit during their payback period. Political democracy is depended upon economic democracy as this is the only way dependents can become independent of government.