The Public Sector in a Sustainable Economy

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While many futures writers express the need for a sustainable economy, the description of such an economy has yet to be developed. This paper suggests that economies need to move into a mature phase characterised by an overall steady-state. A key factor in defining this mature economy is an adjustment to the impact of progress and new technologies which replace human labour with more efficient machines. Since increasing efficiency will reduce employment in the private sector, the public sector needs to expand. Other appropriate policies include a reduction in work hours and a wider, more equal distribution of work and incomes. This requires a strengthening of union power.

There can be dangers in too great a concentration of power. While power must be taken from the Trans-National Corporations back into the hands of the nation state, while the public sector must be extended, and while the influence of employee organisations must be strenghtened, a mixed economy with a substantial private enterprise component will reduce the possibility of the dictatorship of any one group. That private enterprise sector must be compatible with a sustainable economy, and move from an insistence on never-ending growth to develop the capability to operate within a steady state mixed economy.

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The Need for Steady State, Sustainable Economics

There is now too much productive capacity worldwide. Yet even while markets are saturated, the major thrust of current economic policy is for growth. Thus one of the main continuities in economic behaviour is this desire for growth, while one of the most important changes demanded of modern economies is for adjustment to sustainability. There is a conflict here; policies for business growth are the very opposite of those required for sustainability.

That conflict derives from the success of past growth and the need to adjust to a situation of plenty. The developed world faces the long-term challenge of how to manage success, of how to turn growth into sustainability. The challenge of "Resolving the conflict between economic growth and sustainability" has been identified as a "Critical Issue" in futures research. (Slaughter 1996 page 9) Any "structural overview of the near-term future" (Slaughter 1996 page 5) must include an analysis and description of the changes required to adapt to the recognition that developed economies have reached the end of a growth period.

In taking up this topic I am then following the path set down by Slaughter in this journal. I hope that others will continue the debate, and that this new journal may become a forum for dialogue on significant, even controversial, issues.

This is neither a new, nor an unexpected, challenge. Last century, Marx could bewail the failure of economic growth to provide universal prosperity.

"In our days everything seems pregnant with its contrary; machinery gifted with the wonderful power of shortening and fructifying human labour, we behold starving and overworking it. The new-fangled sources of wealth, by some wierd spell, are turned into sources of want." (Marx 1954, Robinson 1989 page 39)

Many others have noted this contradiction in the market system. In mid-twentieth century, mathematician and philosopher Bertrand

to examine the perverse working of the market. Instead of cutting working hours and providing increased leisure, a competitive profitoriented firm would either double production, flood the market and risk business collapse, or would fire half the workforce, thus creating additional unemployment. (Robinson 1989 page 38)

Such decisions can not be considered in isolation from the surrounding society - the consequences of private enterprise depend on the current economic conditions. If when a firm reduces staff, there are other jobs waiting to be done, then displaced workers can move on and take another useful job. But once a period of national growth comes to an end the workers are excess to demand; they are rejected and become a problem for themselves and for society.

All too often the challenge of success has not been met and the developed economies have slid into depression. Each time a period of growth leads into collapse, in a series of growth and decay periods known as Kondratief waves. It has long been evident that the Marxist crisis of capitalism may not to be a unique event leading to its replacement by a fundamentally new system. Historically, capitalism does indeed move into crisis, but each time the collapse has been followed by a resurgence of the system - then another growth phase, then another collapse.

Yet even though the challenge of dealing with success instead of collapsing into anarchy is the dominant challenge of the late twentieth century, it is rarely recognised. Those who control the world desire growth and refuse to see the dangers ahead.

This is a well-travelled path, and there can be no doubt as to the major trends. Yet many fellow futures magazines contain articles which claim that the modern world is dominated by uncertainty. We are called upon to "focus on preparing for the improbable", to consider the "wild cards in the future" and to study the vague theories of "chaos". This is an intellectually lazy, and indeed dishonest, approach - to focus on uncertainty when the major problems which can be observed today have been forecast and can be well understood.

world happier and more beautiful - without any prescription of the path to be taken or of the necessary and difficult actions required. It is important to reject either a reliance on ignorance and "chaos", or calls for some ill-defined and impossible utopia. Futures scholars must attempt to proceed by firm steps and clear understanding.

Futures research can be scientific. As time goes by, forecasts can be checked. Some hypotheses can be rejected while others will form the foundations of the discipline. That process takes decades, but it has been in process for centuries, and there is a considerable body of theory and experience to draw upon.

Placing Ourselves in History -the End of a Growth Phase

The theory of Kondratief waves, and the manner in which economic success has led into collapse and depression, is one example of a theory which has stood the test of time. The basic concepts were formulated in the 1920s, when the expectation of a collapse and destruction of capitalism was replaced by the recognition that such a collapse may be followed, after a traumatic period, by regrowth. Since then there have been two great periods of high unemployment, from 1929 into the Second World War, and from around 1971 through to the present day-and into the future.

There is, of course, no exact repetition of historical events. The first of these most recent downturns was signalled by stock market collapse, extremely high unemployment and extraordinary inflation followed by world war. The second has taken place in a time of global (though not local) peace. Welfare systems and international financial institutions have provided positive feedback and a degree of control, and prevented a total collapse. Since the collapse which would lead into a rebuilding phase will not be complete, the downturn will linger on for decades yet.

Massive sums of excess capital continue to move around the world, bringing a so-called "economic miracle" in some new region before the artificial growth phase falls apart and capital moves on erty and environmental degradation.

The length of the current downturn phase has provided me with a personal affirmation of the suitability of the Kondratief theory, when enriched by the recognition of the particular features of each historical period. Since 1980 I have expected high unemployment in the Western economies to continue past the end of the century, and that forecast has proved robust.

The persistence of global, long-term over-production and unemployment is, as noted above, a critical issue for futures research. The resolution of the conflict between economic growth and sustainability is an issue which cannot be resolved by tacking some vague concept of "sustainability" on to a continuing economic growth model. As argued so coherently in "The limits to growth" (Meadows et al 1972) and other similar studies, overall economic growth must come to an end. If nations do not adjust to success and stability, they run the risk of continuing inequality and distress, or of moving along an overshoot-and-decay path and crashing down. Indeed, that very process was under way at the time of the publication of "The limits to growth"- 1972.

The solution cannot be "organic growth" (Mesarovic and Pestel 1974) or "sustainable growth". Indeed, in many ways human activities must reduce considerably in order to protect the planet on which we all live, and to provide space for other endangered species.

In order to improve the lot of its citizens, any new, underdeveloped economy will move through a juvenile growth phase, characterised by experiment, exuberance and enterprise. The time of growth is a time of learning. Then, once the economy has developed and needed infrastucures are in place, it becomes time to put the follies of youth behind and to move to a comfortable, wise maturity. Yet the developed world has refused to grow up and has continued in an extended adolescence with all the extremes of immaturity.

It may be hoped that social systems do not necessarily have to experience death before being reborn, nor to kill the planet in their youthful foolishness. Even though the repetition of that pattern is There is an important message here for developing economies too. This is no longer an apparently infinite world of unlimited scope. The globe is finite and the so-called developed economies have shown that human activity may bring wide-spread destruction. Much of that inequality and destruction, directed from powerful center business enterprises, is taking place within the periphery nations.

Plans for an escape from poverty must take proper cognizance of the environment, and must look ahead to the time of maturity when growth must be replaced by sustainability. That level of material consumption will certainly be less than that of the over-greedy central West, whose wealth is in part taken from the developing world.

Growth Opportunities in the Business Sector

Even within a steady-state economy there will be changes in emphasis and shifts in business activity. There will be growth in some areas while others remain constant or decline. Such a process has been evident in recent years as new technologies have expanded rapidly, creating a demand for computer-literate workers while reducing labour demand elsewhere. The overall consequence has been a loss of employment despite the growth in the new sector.

One area in which considerable growth is possible is in environmentally responsible activities such as recycling and the reduction of resource use where the aim is "to reduce substantially the impact that each of us has upon our environment". (Hawken 1993, page 211) Paul Hawken "proposes three approaches...

...entirely eliminate waste from our industrial production...

...change from an economy based on carbon to one based on hydrogen and sunshine

...create systems of feedback and accountability that support and strengthen restorative behaviour, whether they are in resource utilities, green fees or agricultural chemicals, or reliance on local pro-

There is no doubt that efforts to clean up the environment and reduce resource usage will continue growth in this sector. Two questions need to be considered when the overall impact on employment is considered. Firstly, how big is the sector? Even a growth of hundreds of thousands will leave millions of people unemployed.

Then there is the question of what actions will be taken by private enterprise and which require collective action, and collective funding. What changes to the structures of business and government will bring about the desired results?

The moves suggested by Hawken are vague and do not point to any concrete actions. "The diversity of the small business sector must be encouraged, not by government loans, but through the revitalization and revisioning of incentives that will liberate the imagination, courage and commitment that resides within small companies."

The Ecologist has thrown down a far more difficult challenge, in a comment quoted by Hawken (page 216). "Unwilling to question the desirability of economic growth, the market economy, or the development process itself, UNCED never had a chance of addressing the real problems of 'environment and development'."

The real problem is that all sectors of business are ultimately involved in the creation of products. The technology sector, the finance sector, all contribute to the use of resources and the replacement of people by more efficient systems and more efficient machines. Even with a focus is on the growth in technology and recycling, more cars may be produced each year - and cars have become a throw-away commodity in free-market New Zealand.

"It makes more sense to examine the system itself, to slow down and arrest industrialization so that it is redesigned and assembled into a system whose growth enhances human existence." (Hawken, page 208) Hawken travels a well-worn path, of those who find fault with the damage caused by human activities, but who are unable to give up the desire for growth which is the religion of the industrial age.

which bring together the many interacting factors, provide convincing evidence that economic growth has gone too far in developed nations and has moved past a possible equilibrium point into an overshoot-and-decline mode. The challenge is then to wind down.

Demographic Changes and the Work Force

While the focus here is on the consequences of economic success and increasing efficiency, including the impact of new technologies, a number of other factors will impact on the employment scene.

Across the world, birth rates are dropping. The decrease is in accord with past forecasts and will not prevent a series of global human and ecological catastrophes within the coming half-century. However, that impending global crisis is not the topic here where the focus is on the effect of declining fertility on employment.

In developed countries women are deciding to have smaller families and wish to enter the work force. There are several consequences:

- There are more potential workers from the working age population.
- There are fewer children to care for, but a greater demand for child care as many women wish to work.
- Whereas a young, growing population creates demands for increased, new infrastructures (new housing estates, schools, etc.), in a stable population only upgrading and maintenance are required.
- As there are fewer children, the proportion of young declines and the proportion of elderly increases. This is the base cause of the "ageing" of populations. Note that as women are freed from childcare, there may be adequate or, indeed, excess workers available to produce goods and to care for the elderly.

There is no shortage of potential workers and none can be foreseen. The period of economic success has created a situation of an oversupply of goods, and a reduced demand for workers. The demographic changes add to the problem of an over-supply of labour relaUnfortunately the reaction in many developed countries such as New Zealand is to reduce social services and to demand that people become more self-sufficient just when so many have been thrown out of work. This policy has exacerbated many social problems. Thus, for example, growing numbers of sole parents are struggling in poverty to raise their children. They need the help which is being withdrawn.

What is of interest here is the lack of conflict between many economic, environmental and social goals. Whereas highly efficient, successful economies can function with fewer workers, environmental protection and repair demand considerably increased effort by many people and growing social needs too require increased effort. While more people are available to join the work force, manufacturing and business demand fewer employees. These people could be gainfully employed elsewhere.

The challenge is not for economic grwoth but rather to allow each person a meaningful life within a stable economy.

How to Deal with Efficiency - by Distributing Employment

Whatever the economy - capitalist, socialist, mixed or other - and whatever the culture, national economies face or will face the challenge of sustainability, and the parallel question of how to organise in order to make use of the increasing efficiencies of modern technologies. One fundamental issue is the increasing efficiency in some sectors where people can be replaced by machines, coupled with the need for greater human input into other sectors such as health, education and environmental protection, which are labour-intensive activities.

One possible policy is outlined here. Then other reactions, some of which can be observed in various economies today, are considered, along with the consequences of each policy choice.

These theorems were initially developed with the mixed economy of New Zealand in mind (Robinson 1994 pages 144-150). While

to adjust the pattern to suit their circumstances, the basic principles apply whatever the particular national organisation.

This model commences with the picture of a mature economy in which there is a balance between production and demand. the basic infrastructure is in place and there is no major reason (such as poverty, population growth or rebuilding following a destructive event) for general economic growth. Indeed, pressures on the environment are of concern and effort is required to repair damage and prevent further harm. Developed countries such as New Zealand had reached that level by the 1970s.

Improvements in technology and organisation continue (as, for example, computerisation since the 1970s), so that the production of many material goods becomes more efficient. More can be produced within the material goods sector-mostly in private enterprise within a mixed economy-with less human effort.

If the national aim were to provide full employment, the unwanted workers could be employed elsewhere, on the many social and environmental tasks still to be fulfilled. For many of these tasks the improved efficiency of technology is limited at best. Nursing and teaching, for example, require the human touch. Such jobs are best done with real live people.

Thus gains in efficiency due to new technologies will impact more strongly in the private sector, where material goods are produced and business services are provided. Fewer people will be required to satisfy demand. These gains are less possible in many collective activities which are more strongly based on human input. This points to the need for a shift of employment from the private sector to the collective sector.

While collective goods (health care, education, police, environmental protection) are for the most part most effectively provided to each citizen free of charge (with the healthy and fortunate looking after the sick or unlucky, and with regional efforts in environmental improvement), privately produced goods are purchased by an exchange of moneys. Each citizen needs to be provided with the pur-

excess to the more efficient requirements of business and can be employed usefully elsewhere must be paid a full income with decent working conditions.

Income must then be redistributed - collected through taxation and paid to the workers in the collective areas. An increase in taxation was indeed a feature of mixed economies in the successful growth period from 1945 to 1975. As economies became more efficient, people could be moved into much-needed social tasks.

The flow-on effect from this policy has been, and would again be, a distribution of employment, incomes and purchasing power across the population. This distribution of income supports the economy and eliminates the opposite negative feed-back whereby unemployed and unsupported people have no resources and are forced to cease consumption - which leads to other people becoming out of work. Caring for people can be good for the economy. Indeed the existence of the welfare state built up in the 1940s and 1950s is a major reason for the avoidance of a complete collapse in the closing decades of the century.

The pattern which has been outlined here is of an economy within a country which appreciates that the growth period is over, which understands the need for a sustainable economy, and which desires full employment to provide a meaningful role for every citizen, as well as taking care of the many tasks which remain untouched by private-enterprise growth.

The provision of full employment requires growth in the public sector, and distribution of purchasing power through taxation on company and private incomes.

A Shorter Working Week

Another suitable reaction would be to reduce the working week, repeating a past pattern as the standard working week has come down to 40 hours in most developed countries. This step would require some control mechanism, which is provided only by the

ploymment regulations are obeyed.

Indeed, the introduction of the 40-hour week in New Zealand was accomplished by the stroke of a pen by a simple adjustment of existing legislation - the controls were in place and unions were key players in industrial relations.

The provision of full employment by spreading the work round may increase the costs of some items. However, the provision of incomes supports expenditure and provides a wide taxation base. That is to the benefit of society and the national economy, even though an added cost to individual companies.

It is notable that this rather evident step, which was widely argued in the 1970s, has been countered by the newly dominant political forces. The trend in many developed countries has been to longer working hours associated with high unemployment.

Market-driven Reactions

There has been no evidence of any appreciation of the causes of the economic instability and increases in unemployment since the 1970s. Indeed the main thrust has been away from the many ideas of the collective sharing of jobs and benefits which were debated at that time.

When control is with the owners of capital who desire above all else to maximise profits, each business will attempt to expand while shedding workers. The consequences of that process have been evident during several historic periods, including the present. Unemployment grows, conditions of employment are degraded, and some businesses collapse as others overproduce.

Most displaced workers are left to join the ranks of the unemployed. Indeed, the parallel reduction in collective enterprises has often led to further decreases in employment as public sector employment has shrunk. There are a number of flow-on effects from these reductions in employment, as the decrease in incomes diminishes purchasing power. Each reduction reduces purchasing power

economy winds down.

That negative feedback has been weaker recently than during earlier long-term depressions. Welfare provisions, including unemployment benefits, support the purchasing power of the unemployed. These payments, however, increase demands on distributive agencies-unemployment benefit payments increase the demands on taxation at the same time that many people earn less and can pay less in taxes. The consequence of increased efficiency is again an increase in tax rates, even without the benefits of full employment.

Thus, despite cuts to social services, taxation remains high in many developed countries (including New Zealand) which have followed the new right, more market model. Unfortunately the taxes are used to provide welfare to the dispossessed rather than to build a comprehensive and sustainable economy. Following that path, the only way left to reduce taxes is to drive the dispossessed deeper into poverty.

There is meanwhile no substantial body of research carrying the message of past success and providing information on the positive economic role of income redistribution. Those who remain employed, and often earning very high incomes, resent taxation.

One recent trend has been to blame the victims and to suggest that millions of people across the world are out of work by choice. That is buttressed by imaginative theories of welfare dependency which describe people who lack work as having become so dependent on welfare that they do not try to find or produce work. Some New Zealand writing has even made unproved claims that Maori "desires and preferences" are for lower standards of education and employment. A new racism is forming which replaces genetic determinism by cultural preferences for a position of inequality.

Meanwhile tax cuts on high incomes put more money into the hands of the wealthy. The result is that spending on luxuries increases while spending on basic needs decreases, international travel and overseas expenditure increases while spending on locally

Such policies create an underclass which is over-represented by ethnic minorities such as the New Zealand Maori. It can also lead to a short-term depression as beneficiaries lose purchasing power. The greater disparities result in many social problems, including the collapse of family structures and increased delinquency. The costs for the future of dispossessed and dysfunction families and communities are considerable. The ultimate savings are often illusory, but the shift in income and power to the wealthy is real enough.

The Importance of the Nation State

A move to a sustainable economy requires a comprehensive exploration of just what that economy might be like, how features of historic economies may be taken up, and whether any significant adjustments are called for.

Certainly the so-called free market in which control is handed over to powerful international players whose major interest is in profit generation rather than human good or the protection of life itself cannot answer the challenge. Indeed, despite the widespread recognition of global problems in the 1970s, the developed world has been driving persistently in the wrong direction since the New Right revolution of the 1980s.

Each nation state needs to regain the sovereignty which has been lost, and which is being eroded with the spread of the international market. The secret deals surrounding the World Trade Organisation must be abrogated.

One difficulty here is the weakness of leadership which has developed as the wealthy have spread their influence. Politicians - President Clinton of the USA and Prime Minister Tony Blair of the United Kingdom are prime examples - now succeed when they adjust to the demands of business and move away from populist, socialist or social democratic policies.

This paper, which set out to consider economic questions has moved here to consider some features of present - day politics. This

which was so extensive in the 1970s, has been crushed by a political movement which is now in control of the levers of power and influence across much of the world, There has been no move to place considerations of ecological or social sustainability at the center of economic theory.

Multiple Power Systems

The solutions to general sufficiency and increasing efficiency involve increased taxation and more public employment. The apportionment of employment by a reduced working week will only be possible if the union movement is strengthened. Each of these requires stronger central government and a reversal of current Western government policies.

Ownership of all the means of production by central governemnt would solve the problem of moving purchasing power to an increasing proportion of public employees. If everyone is employed by government, pay can be provided to every person and the money all comes back to the center since all spending is on government-provided goods. There is then no need for taxation at all.

We should, however, beware of solving one problem and thereby creating a worse predicament. After all, the twentieth century has seen a number of patterns of extremely strong central government, and the gathering of power into few hands has been a feature of, or has created, dictatorial political systems. The current trend is towards just such a system, with control over nations and peoples exercised by extremely powerful trans-national organisations. Here in New Zealand many democratic organisations have gone (hospital boards and electricity boards for example), some have been seriously weakened (local councils), businesses have been privatised and sold into foreign hands, and much of government is by an extensive patronage system which concentrates power within Cabinet.

Since power corrupts, and since the desire to play some part in the governance of the community and nation is a key human right, it amongst a disparate number of groups. That argues against either a control economy run through a patronage system in the interests of trans-national business, or an authoritative political structure.

An additional reason why the power of business oligarchies must be reduced is that the major interest of capital is profit generation and growth. The peoples of the world cannot hope to organise the benefits of economic development, or move to sustainable, stable societies (with reductions in much resource useage) unless the growth ethic preached by business is refuted. That is proving an impossible task, given the control of global media by those same growth-hungry forces.

There was for some time in the developed West a reasonable mixed economy model which divided power amongst a number of groups: elected parliament, the public services, local government, business and unions, and pressure groups. That pattern needs to be recovered, and each group must adapt to the new sustainable society.

A No Growth Business Sector

It once seemed possible, when a window of opportunity seemed to open during the 1970s, that logical debate (related to experience) could result in steady changes to priorities and policies. Indeed, the initial aim of many of us in the nascent discipline of futures research was to explore and describe the growing global problems (the global problematique of the Club of Rome) in the expectation that change would follow.

The opposite reaction now surrounds us. This was signalled by the business world early in the debate. The World Bank (1972) reported a considerable resistance to the message of "The limits to growth" from business, who believed that free enterprise capitalism was necessary for freedom (which they defined), and that growth was a necessary feature of that system.

"A majority of the reviews considered the no-growth implication of the model to be its major conclusion. Most of those opposed

them being tradition, implications for liberty, and implications for income distribution." (World Bank 1972, Robinson 1989 page 119)

The implications for income distribution of a one-eyed emphasis on growth has been evident as income differences have widened in many developed nations. But the main thrust of the resistance is the simplistic idea that there can be no freedom without economic growth. This denies the evident reality that a finite world does not allow for never-ending growth.

There can be no reasonable expectation that trans-national corporations and their international allies will accept and promulgate an end to the growth myth. Each state must therefore move control of its own resources, including business, back within its own national borders.

The task will then be for each business, within each sovereign nation state, to recognise that the survival of the economy, of society, of people, and of the planet depends on adjustment to a sustainable pattern. The grand axis of debate in politics and economics should revolve around the appropriate division of collective and private ownership, and the adjustment of each sector to stability.

One step will involve a change in the definition of success and in the choice of the most honoured individuals. We must turn resolutely away from the selfish and amoral hero of Hegle, Neitsche and Ayn Rand so beloved by big business. The world will continue to need, and to acclaim, successful people, but these should display collective skills and work for the many rather than the few-or themselves alone.

These comments raise the question of whether business can adapt to a world in which each produces a useful product within a steady economy, with only slight opportunity for expansion. It may be that many in business would welcome the chance to live a full life, with free time away from work, rather than striving in a senseless competition to overproduce unwanted goods.

But it is hardly likely. If the aim of futures research is to fore-

clear that environmental catastrophe, starvation, plague and war can be expected around 2020-2030. (Robinson, 1996) If the aim is to plan for a better world, then this paper represents a starting point, suggesting some national policies of greater self-reliance and an adjustment to an end of overall economic growth which involves a far greater role for the public sector.

The desired change in business aims and attitudes cannot be expected from the world of business. This is a profoundly political question. The solution must be sought in changes on a national level, defined and forced by the popular will. The diminution of democracy in many developed countries, such as New Zealand, the lack of democracy in many developing countries, and the general lack of open public debate suggests that such a development is highly unlikely.

The above suggestion for "a change in the definition of success" has some similarity with Hawken's desire to "liberate the imagination, courage and commitment that resides within small companies." We each have some idea of the changes needed before sustainability becomes possible. We must now set down the concrete steps which must be taken to get there. I am arguing for national sovereignty and a greatly increased collective enterprise, for stronger unions and a shorter working week, and for higher taxation.

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