

# Notes on Monitoring and Facilitating Sustainable Development

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## Introduction

Sustainable economic development is a huge topic with many dimensions. It is very important because it represents the *living standards of ourselves and our descendants*.

By and large we can be grateful to our forebears. They have generally left the world in better shape than they found it. Hence the world is capable of sustainably housing many more people than at any previous time of human history. It is our challenge to live well, and to leave our earthly real-estate to generations that are able to live at least as well while also being imbued with the ethos that they in turn should be caring and capable guardians of humanity's most precious of assets.

## Living Standards

Progress (*aka* true economic growth) is to increase standards of living through:

- more and better services (albeit more non-market services derived from market goods)
- an inclusive distribution of income
- an increase of usable free time.

On the former point, goods provide services (indeed repeatable services) rather than utility in themselves. A washing machine provides repeatable cleaning services. A CD player provides repeatable entertainment. A radio tuner makes a stream of entertainment and educational services available to a mass market. A telephone provides communication services.

On the latter point, raising living standards takes place when we are less bonded to the marketplace and more able to contribute to our own well-being and to the well-being of others in ways of our own choosing (ie by pursuing our *life projects*), and when we are educated well enough to know what projects may add meaning, enjoyment and fulfilment to our lives.

## Growth is Good

The best outcome is sustainable *economic growth*; meaning that living standards rise in a way that does not disadvantage future generations. *The worst outcome is unsustainable non-growth*. Industrialisation has provided us with a ladder into an achievable world of high living standards and sustainable economic growth. The worst possible response to our concerns would be to descend that ladder.

Our socio-economic world is full of paradoxes. A "policy" of less growth could easily lead to less sustainable outcomes than a growth-enabling policy.

## Learning from History

The western world from 1850 to 1930 (and especially 1890-1930) experienced something quite important; a form of slowish growth (per capita) that was substantially accompanied by increased leisure, decreased inequality, and increased educational opportunities.<sup>1</sup>

From the 1970s, on the other hand, growth has been accompanied by decreased leisure, and increased inequality. *Added-worker effects* have dominated as real hourly wage rates have fallen. Policy emphasis has focussed increasingly on social participation through *paid* work. Parents in particular commit much

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<sup>1</sup> Subtracted-worker effects – *added-worker effects* in reverse – were common, as well as reductions in the length of the work-day and the work-week. Added-worker effects occur when reductions in household incomes induce persons to enter the labour force to assist their households to meet their financial obligations. Subtracted-worker effects occur when rising wages enable persons other than main household breadwinners to withdraw from the labour force.

*more of their combined time* to the marketplace, and much less to their collective and individual projects. Increased labour supply (including productivity through "working harder") is seen as the route to economic growth, because we see growth in gross rather than in net terms.

In fact the competition for positional goods that has required households to work substantially increased hours is an aspect of unsustainable growth (excessive growth of inputs) which creates huge *defensive consumption* requirements.

We need incentives that facilitate voluntary reductions in the use of "factor" inputs: labour, land, capital. The most important change required is that people become less dependent on wages and salaries, and that income accruing to capital and land is more equitably (and more collectively) distributed. People can make more sustainable choices – eg working fewer lifetime hours – when they have multiple sources of income<sup>2</sup>.

### **Defensive consumption. Many outputs are both benefits and costs.**

Many goods and services are really costs. For example, almost the whole of the "financial and business services" sector represents "transaction services" that are really costs. They are netted out of "all-sectors GDP" as inputs into other sectors' outputs. In other words they are counted as positives in the data for "financial and business services" and as negatives for the sectors that purchase these services. *More inputs of these services may not lead to more outputs overall.*

The remaining outputs of the financial and business services sector are services to households. Many of these represent defensive consumption: we hire lawyers for example to counter the negative externalities created by other people hiring lawyers.

Probably a majority of government outputs also fit the category of transaction services. These are quite different from consumer services and the provision of collective goods such as parks and libraries, in that we buy them for competitive reasons and not for enjoyment.

All forms of *defensive consumption* and *transaction services purchased by households or produced by government* (ie "final transaction services" as opposed to "intermediate transaction services") should be shown as positives on the production accounts, and as *both positives and negatives on the living standards* accounts.

Sustainable economic progress must involve resources shifting from activities which do not increase living standards, to activities which do add to societal living standards.

### **Product versus Income versus Expenditure measures.**

New Zealand's gross national expenditure (GNE) exceeds its gross domestic product (GDP) which (substantially and increasingly) exceeds its gross national income (GNI).

It is GNI - or maybe better, net national income (NNI), not GDP – that provides our initial template for our national living standards. Yet our realised living standards are measured as GNE. The discrepancy between aggregate expenditure and national income is massive and unsustainable. We need to better understand why this has happened, and that involves a careful examination of balance of payments relationships under floating exchange rate conditions in a world where national interest rates are prevented from converging.

### **National indebtedness.**

Issues arise because in New Zealand the national debt (net international liabilities) is approximately equal

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<sup>2</sup> Including implicit income "spent" on non-market benefits such as rent on one's own home or wages saved by producing some of one's own food.

to GNI (a conservative estimate in practice). Thus, if foreign parties with valid claims on the output of the New Zealand economy were to exercise those claims *en masse*, the New Zealand economy would not be able to come close to meeting those claims, plunging the country into a deep financial crisis. At present the New Zealand economy meets those claims not through its output but by replacing them with other foreign claims, plus adding additional claims to the annual tune of around 10% of GNI.

In addition there are many more claims held by New Zealanders on future New Zealand output (most of our accumulated savings). A loss of confidence in the ability to exercise those claims in future may lead to capital flight by New Zealanders (ie seeking to exchange claims on New Zealand's future output for claims on foreign future output).

Hence government policy is focussed on measures of economic activity that keep the international credit agencies happy.

Debt claims can only be realised through the acquisition of marketed goods and services. Hence, for debtor countries, there will always be a clash between financial sustainability and economic sustainability. By pursuing development paths that focus on productivity growth through reduced inputs rather than through increased outputs, nations risk being seen to be indulging in financial "moral hazard" – increasing their default risk with respect to foreign claims – and therefore financially downgraded by the credit-rating agencies.

Further, a financial crisis that becomes an economic crisis can lead to many unsustainable practices as people increasingly operate in survival mode, with a limited time horizon. This contrasts with our concept of sustainability which, by definition, requires us to make decisions with a time horizon well beyond our individual life spans.

There are ways around this conundrum, in particular by recognising that defensive consumption and transaction services create the illusion of wealth that may be used to settle liabilities, but in reality cannot settle debts *en masse*.

### **Tradable versus Non-tradable Outputs.**

The kinds of goods/services that are most able to be used to settle liabilities are tradable items, slightly less than half of the New Zealand economy, and falling (as a share of GDP) in New Zealand from 2003 to 2008.

Hence, a useful route to both economic and financial sustainability will be to facilitate incentives for resources to move away from activities that both have unattributed costs and are non-tradable, and into activities that have significant net benefits, including but not only tradable goods and services. Thus, on balance the production of useful tradable products could be maintained or even enhanced.

### **Inflation and Sustainability.**

To a macroeconomist of either Keynesian or classical orthodoxy, "sustainable" simply means "non-inflationary". The "sustainability movement" must engage in this debate about inflation if it wants to be taken seriously.

(There is a secondary meaning in macroeconomics of "unsustainability", at the national level, relating to balance of payments' current account deficits. Current account imbalances certainly do create impediments to achieving a globally sustainable economy because of the huge mismatches of financial claims that result.)

Orthodox views on inflation (which link it to excess money and/or excess spending) represent a very limited (demand-side) interpretation of the matter. Orthodox economics can be used to provide substantially enlarged and apparently different views on inflation. As with the Jewish/Christian bible, you

can find the story you want by knowing which chapter of the textbook to turn to. If you want a different story, you go to a different chapter.

There is a very important supply-side story, in which an unbalanced and depleted natural environment increases economic scarcity (relative to a sustainably cared-for natural environment). (One can add to this argument by considering the labour environment, or the capital environment.) Hence inflation is not only a story of aggregate demand increasing too quickly, but also of aggregate supply bottlenecks (such as those relating to our dependence on oil).

Another approach is to consider the balance of the stock of financial claims on goods and services against the actual availability of goods and services. The stock of money represents just a fraction of all financial claims. If too much money is exercised (ie exchanged for goods and services) then the value of money falls and prices rise. If too many other financial assets are sold to buy goods and services, holders of those assets have to buy money first. The result may appear as deflation – falling prices, leading those who hold money to continue to hold it rather than spend it – but is really a kind of inflation; an attempt to realise financial claims whose market values are expected to fall faster than the prices of goods and services.

Our problem is that, if an economy, in an attempt to make it more sustainable, is seen to be becoming more supply-constrained, then claimholders (ie holders of financial assets) may be more likely to panic and rush to liquidate their assets in order to stake their claims on what they perceive as a shrinking economic cake.

In the present environment, there are pressures for us to save more and spend less – which means to acquire more financial assets and relatively fewer goods and services. A result is less reason to invest in the capital goods and technologies that enable productivity to increase, creating an inflationary timebomb when, at some time in the future, more financial assets are realised in combination with reduced supply.

## **Productivity and Conclusion**

Ultimately, sustainability is a productivity issue. Productivity is the ratio of outputs to inputs. Current alignments of market forces and government policies oblige productivity growth to take the form of increased outputs rather than decreased inputs. Our challenge is to reverse this alignment of incentives and policies without panicking the financial horses. We need slower growth of physical outputs combined with *negative growth of labour and some capital inputs*, combined with means to ensure a much more equitable distribution of non-labour income.

Our world is characterised by scarcity in the technical economists' sense of the world. But that's like saying the glass is half-empty. Economists call it the "problem" of scarcity, as if it must be overcome.

More importantly, our world is one of abundance, and sustainable abundance at that. The glass is half-full. People do choose to work less when they feel they have enough (subtracted-worker effect); history proves that. (Further, people become less healthy in an excessively competitive excessively unequal work-obsessed world. Thus medical services can be seen to be, in part, a form of defensive consumption.) The means to less inequality is a substantial research project on *public property rights*.

To achieve a sustainable global future, we need to reverse the ingrained incentives that convince too many of us that living standards can only rise if we collectively and individually work more, and thereby use more resources in the process of working more. A sustainable future, involves productivity improvements arising from a less intensive use of resources. We need progress indicators that measure our success in these terms. Human progress can be measured as the fulfilment of life-projects, or at least as the extent of the opportunities we have to engage in the activities of our own choosing. That basically means, the extent of our time-release from market forces.

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