

Enough! The Challenge of a post-growth economy

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Rabbit has invited Winnie the Pooh to lunch. Finally, and only after checking that there really is no more, Pooh tries to leave but his stomach is so gross after eating all the honey that he gets stuck in the doorway.

Debating why this terrible state of affairs had arisen Rabbit, an early ecologist (provided you discount his breeding habits) was clear:

“Oh, dear. Oh, gracious. Oh. Well, it all comes from eating too much.”

Pooh, a modern consumer, had a different take:

“It all comes from not having front doors big enough!”

AA Milne doesn't elaborate on the discussion that ensued during the following days of enforced dieting, but one can imagine the Pooh solutions proposed – “Rabbit, you should cut a larger doorway. Rabbit, you might need to move to a bigger tree”.

But it is Christopher Robin who understands overconsumption and provides the common sense answer: “Pooh, you will just have to stay there and not eat any more until you lose weight.”

Pooh responses, assuming an infinite world, still dominate any discussion about scarcity of resources. Christopher Robin's small voice for living within the limits of our planet is barely heard.

What I am going to say today has been said many times before. But some things need saying over and over until they are heard. The fundamental message is, continued growth in the throughput of resources and energy is not possible; our current way of life is not sustainable; but life can still be good if we plan for a post-growth economy.

In the last few years we have had record heat waves, killing tens of thousands of people in Europe; sustained record summer temperatures in Australia; record floods, record droughts, record storms of which Katrina and Sandy are only the best known because they occurred in the US.

Glaciers and polar ice are melting at unprecedented and unpredicted rates; crude oil prices multiplied by ten from 1998 to 2008, and we are generally agreed to be past “peak oil”, at least for easily accessed low cost quality crudes; the price of basic foods doubled and some tripled in 2008; freshwater has become scarce in more countries; we are losing 150-200 species around the planet *every day* despite the efforts of conservationists; the ocean is acidifying, fisheries are seriously depleted and there are 400 dead zones in the ocean, some with dense floating plastic waste many kilometres across.

I’m not going to dwell on these or lash you with figures to prove my points. They are already well documented; but they are not the real problem. The problem is not climate change, or peak oil, or loss of biodiversity or ecological collapse of the oceans, or food shortages.

They are just symptoms of the bigger problem, that the earth is full. Humanity has outgrown its habitat and there isn't another one to move to.

Since the 1970s we have been consuming more than the planet can provide on an ongoing basis. By now we are far advanced into ecological overshoot where the Global Footprint Institute calculates we are collectively using the annual productivity of 1.3 planets every year. If everyone lived like New Zealanders we would need 2-3 planets and if we all lived like US citizens we would need 5.

Growth in our use of energy and resources and the discharge of wastes add up to overall economic growth, GDP: the sacred cow no-one dares to challenge. Governments, business and society at large have for nearly 70 years measured our wellbeing and our progress by how much bigger the economy is every year. Growth is the holy grail by which governments stand or fall. Business claims it must grow or die, though it's not at all clear why. People expect their incomes to rise every year in real terms. Young people expect to set out in life with the same accumulation of consumer goods as their parents have when they retire, and to go on accumulating.

These constant increases in food, buildings, roads, bridges, manufactured goods, transport systems, i-pads, can't be achieved without constant increases in the throughput of energy and resources. It doesn't take detailed research or computer models to suggest that

sustained increase in the use of energy and resources on a finite planet spells grief. Surprisingly, that is not a new idea, even though most of us try to ignore it. Early economists, including Adam Smith, JS Mill and Keynes all foresaw the end of growth as natural and inevitable – presumably after all citizens had enough.

The numbers of global citizens expecting this constantly rising level of consumption has tripled in my lifetime and doubled just since my two children were born.

Before provoking the usual cry that “they” should have fewer kids, I must tell you that consumption per capita has risen far faster than the number of people. Since I was born in 1945 world population has tripled but global economic output has risen 20 times. If this meant that more people now have enough, it would be a cause of celebration. However there are more people in extreme poverty than a lifetime ago and the extremes of wealth have become sickening. Just 2% of all adults in the world own nearly half the total household wealth.

Since Schumacher wrote *Small is Beautiful* in 1973 world population has doubled and global consumption risen five times. He was right that the problem is one of scale – the scale of human numbers and consumption. How much more trouble are we in now?

The first systematic assessment of the Limits to Growth was the Club of Rome’s book of that name in 1971. The authors built a computer model of the global economy and known resources and ran “what if” scenarios plotting

the effects of continuing the same rates of growth in population, food production, minerals, energy, and pollution. All scenarios showed a collapse of the global system in the first half of the twenty-first century. Massive improvements in technical efficiency and discovery of new resources delayed the result only a brief time.

It has been common over those 40 years to ridicule the report as wrong, making predictions which have not been fulfilled, and neglecting key issues. While the authors did not foresee the rapid economic rise of developing countries, or the seriousness of climate change, or the extent of some forms of technical progress, those have not changed the conclusions and we remain right on track to validate the model. We have already overshot the capacity of the atmosphere to absorb greenhouse gases and of the ocean to produce fish, and hit the limits globally of fresh water, fertile land, declining reserves of some metals, and crucially, energy.

This is not because we are “running out of oil” but because the energy that needs to be invested to obtain another barrel is increasing exponentially. Early oil exploration obviously developed the largest, cheapest and best quality fields first. When the Saudi oil fields were developed one barrel of oil equivalent invested in infrastructure and production yielded well over 100 barrels of new oil. One barrel invested in the Canadian tar sands is estimated to yield about three – less if you go after the deeper stuff.

I expect my grandchildren, innocent of all this right now, to say one day, “Nana, when you knew all this, how could you have done nothing for *40 years?*”

All of this came to a head in 2008 and the world changed. Growth stalled and for a while reversed. The Global Financial Crisis was at least as much about the price of oil, growing shortages of water and the resulting price of food as about sub-prime mortgages – though we shall see later the role of debt and interest in this whole mess.

The real economic challenge facing us between 1971 and 2008 was not how to grow faster, but how to stop. That challenge was laid out by Hermann Daly and others, who spoke of the Steady State Economy, but the challenge was never accepted. “More! Bigger! Faster!” was Pooh Bear’s only response.

The challenge now is not how to resume growth, but how to manage a post-growth economy in a way that nurtures wellbeing. As Daly said in 2008, “A failed growth economy and a steady- state economy are not the same thing; they are the very different alternatives we face.” The longer we double and redouble our efforts to grow, borrowing more to invest in large dams to irrigate dairying, begging oil companies to come and drill below the sea, mining coastal sand for iron ore, pushing wages and benefits down to increase profits for business and force people into meaningless work, removing the key protections of the Resource Management Act, opening conservation land for mining, taxing and borrowing to

bail out irresponsible banks - I could go on but you get my drift – the more we will damage the earth we depend on and the happiness and health of our people.

Daly, in *For the Common Good*, graphs economic growth in several countries against his Index of Sustainable Economic Wellbeing and shows that up to a certain level of consumption they are in parallel, but that beyond that level – which I would call “Enough”, they diverge rapidly and more growth tends to harm rather than help wellbeing.

Worst of all, it is not just effort wasted, it is effort we desperately need to be investing in creating a new way forward where other goals take precedence over growth.

Perhaps it will be easier now than it has ever been. If growth is hard to achieve more people may be willing to look at the alternatives. Some mainstream respected economists and analysts and even businesses are joining our analysis and turning away from the goal of growth.

French President Sarkozy’s 2009, panel of leading economists called for better measures of wellbeing than GDP. Joseph Stiglitz, a former White House adviser and World Bank chief economist says “Chasing GDP growth results in lower living standards”.

The first international conference on “Degrowth” – “Decroissance” was held in Paris in 2008.

The report which has blown my mind, published just this year, is *Perfect Storm: Energy, Finance and the End of Growth*. That’s not so much because of what it says, but

because of who is saying it. Tullett Prebon – some UK ngo I haven't heard of, I thought. But it turns out Tullett Prebon is a large international financial brokering firm based in the UK.

They say growth is finished, and give as the main reason the rapidly declining energy return on energy invested. They describe the economy as “an energy dynamic, not a financial one.” The real economy is about energy, not money. Someone in there has done some physics, and is not afraid to face the outcome of their analysis.

Production from existing oil wells is declining by 6.7% a year. At that rate, by 2030 the current 86 million barrels a day will have declined to 25. New discoveries have much lower energy returns on energy invested. Compared with those early oil wells of Saudi Arabia which achieved well over 100:1, most new discoveries today are less than 10:1. North Sea oil is estimated at 5:1. Tar sands and shale are less. Fracking of shale oil may appear to have given us a short term bonanza but has not changed the underlying situation.

Nor will renewables allow us to return to growth. Wind and solar photo-voltaic are both well under 20:1, but better than tar sands or shale or biofuels which in unfavourable circumstances can be negative.

Tullett Prebon claim that by 2020 it will be costing us so much for energy to invest in obtaining more energy that there won't be much left to invest in anything else.

In another chapter they analyse the role of debt in both driving the need for growth – otherwise how do you pay the interest? - but also in fuelling consumption. We all remember the banks' ads: "Let your house finance your new car/overseas holiday". Tullett Prebon describe financial speculation as "lunacy" and "collective insanity" and derivatives as "the triumph of greed over fear". A whole chapter is devoted to "the disaster of globalisation".

This is language we are familiar with but when have we ever heard it from the heart of the speculative economic system itself? It suggests to me that something is shifting, and that when people with this background start saying it, economic culture could change very fast. That is encouraging because without a dramatic change in economic culture the only possible future is the chaos of a failed growth economy.

A failed growth economy is where we are heading right now. The first obvious signs are growing unemployment and debt. Governments everywhere promise jobs but they fail to materialise because effort is focused on growing material production. Consumption continues to grow for a while, fuelled by increasing debt which leads to default or vicious retrenchment by governments determined to keep the old model going but who can't balance their books and satisfy Standard & Poors.

As the economy shrinks government revenue drops and Ministers of Finance struggle. There is no budget leeway for the favourite projects of their small support parties. They struggle to keep their own ministers in line as they

can no longer promise that what can't be afforded this year will be possible next year.

They fail to keep their voters in line as the options of more tax or less spend are equally unpopular. Crime and civil unrest increase. Small nations like NZ lose what little sovereignty they had to overseas creditors who threaten to pull the plug. If it looks too bad and there is anywhere in the world looking less bad, capital flees the country, with further loss of jobs. It is no wonder that governments everywhere are terrified to contemplate the end of growth.

The pain of course is not borne equally. Those with secure jobs or land and resources manage, with perhaps a light "haircut: as they say of Cyprus. Others go over the edge.

Instead we could have a thriving society which aims for a better economy rather than a bigger one. A society which values quality rather than quantity. A society which says "Enough pollution, enough waste, enough corruption, enough greed." Where people say at a certain point, "*I* have enough now. The rest is for others, or for Nature so that the kokako, the kiwi, the polar bear, the Maui's dolphin can have enough too and can thrive. Such a society would make it a primary goal for everyone to have enough food, clean water, shelter, health care, education and space for recreation, both in our country and worldwide.

We have been told all our lives that to provide these things we need to grow the economy bigger. How can we

afford for everyone to have enough unless we produce more?

That is so demonstrably and deliberately false it makes me very angry. How is it that the richest society in the world, with unprecedented levels of personal consumption, cannot afford to provide quality healthcare for all its citizens? Yet much poorer countries do. If a society chooses not to afford enough decent quality food and housing and healthcare for all but instead chooses to spend billions on weapons, gambling, stadiums and conspicuous consumption of all kinds, it is not going to choose differently even if the economy is twice the size.

In case people find it hard to imagine that a steady state society could be good to live in, here is a thumbnail of what it could be like.

We have less stuff but more time. Time for families and friends, time for democracy, time for art, music, sport, science, creativity. Less work, but shared more equally. It values quality relationships with people and with Nature. Less travel but thriving local communities. More local production. More growth - in knowledge, science, innovation, the arts, craftsmanship and personal development but not in energy and materials.

There are people living like that now. There always have been, but they don't figure much in economic growth statistics. There are others who aspire to live that way. It can't be imposed by governments, but it can be caught like a benign virus by those in the new economic culture.

It is what Tim Jackson calls “Prosperity without growth” in his book of that name.

Some industries will shrink or disappear – armaments, tobacco, fossil fuels, plastics, pesticides, some pharmaceuticals, building new motorways, and advertising, releasing the resources they currently use for growth in solar energy, reuse and repair, local food production, bioplastics, expanded rail transport, hi-tech low carbon manufacturing. Society is dynamic and exciting – it just doesn’t keep getting bigger.

Production processes would mimic nature, producing no wastes that could not be reused or broken down to substances easily absorbed by the biosphere.

The advertising industry in the West currently spends \$470 billion a year, mainly to persuade people to buy things they neither want nor need. That would go a long way towards providing enough of the things that do matter for those who don’t have them.

However the transition will test all our resolve and ingenuity. Just suppose for a minute that there was a widespread change in economic culture that elected a government on a platform of creating a steady state economy with goals of increasing happiness, equality and care for Nature and each other rather than growing bigger. The challenges would be enormous.

Without growth, government income would drop and “jobs” as we currently know them would shrink. This is

what scares people to the point they are not prepared to consider such a future.

.New jobs would certainly be created in the shift to a sustainable economy, in renewable energy, energy efficiency, low energy transport systems, environmental restoration, land care, people care, social services, craft industry. But jobs would also disappear in coal mining, motorway building, pesticide manufacture and application, for example. Working hours would have to reduce, and income be decoupled from jobs.

Ecological tax reform would remove tax on work and increase it on resources and pollution and wealth, rather than just income.

International relations would need skilled diplomacy if the rest of the world and our trading partners were still stuck in “failed growth” mode. We might seek out countries with similar aspirations and values and form a sustainable trading bloc pursuing the goal of “Gross National Happiness”.

Perhaps the biggest policy challenge would be debt. At the macro level, borrowing at interest assumes that income will grow sufficiently to pay back both capital and interest. If income is not growing, it can't be done. It is debt, more than anything else, that drives the need for growth. If there is no growth, debt is stealing from our children and grandchildren who will not have the means to pay for our consumption.

The US public debt is currently \$15 trillion, a number none of us can truly comprehend. As growth fails, more and more debt is required to squeeze out a little more growth. In the 1990s every additional dollar in US GDP required \$3.20 in additional debt. In the 2000s it was \$5.67.

Questioning the role of private banks in creating money as debt is perhaps the most radical suggestion anyone can make in a capitalist economy but it has been discussed in the past. In response to the great depression in 1933, the Chicago Plan proposed that governments take back from private banks the right to issue credit and create money. Banks must be limited to lending out only what has been deposited, ending fractional reserve banking and requiring 100% reserve backing for their loans. Central banks have a crucial role in regulating the money supply and through that, controlling inflation.

It is incomprehensible to me that governments have not done this long ago. Why would you give away the sovereign power of your country like this? However the banks have always had enough influence to squash the idea.

Last year the IMF revisited it, finding that all the claims made for the system were justified and that in addition, it could hold inflation at zero without crippling interest rates.

It won't happen easily - recent proposals by the Reserve Bank to slightly increase capital ratios for home mortgages have been bitterly resisted by the banks. But

what is clear is that if a government is to remain solvent in a steady state economy it must regain control of its currency.

Local economies will become more important and can be strengthened with the development of local currencies, legal tender only in the local area and carrying no interest. There are many examples around the world where these have run successfully over long periods

The multiple challenges to an economy of Enough: employment, government revenue, debt, trade and foreign relationships are formidable and have always been enough to deter all but the bravest visionaries from contemplating such a future. But they are readily solvable compared with the biggest challenge of all. Governments who attempted such a transformation would disappear without trace as long as a majority of the voters hold the current values of consumerism and “more”.

It is our core cultural values and our sense of identity that are holding back any move to an economy of Enough. How those might change is a psychological and cultural question, not a technical one.

In *Requiem for a Species* Clive Hamilton develops the argument that people in western countries now have made economic growth a fetish – a quasi-religious symbol with magical powers to cure all ills. People’s personal identity – the deepest part of themselves – is as consumers constantly needing and wanting more stuff. “I

shop therefore I am.” There is no such thing as “enough” in that paradigm.

Dealing with climate change, peak oil and ecological breakdown challenges people’s core identity as well as our national identity and so we use various strategies of denial and avoidance to say to ourselves “it can’t be true. Or at least it can’t be that bad”. This is why climate skeptics don’t have to prove anything they say - they just have to sow doubt and we will gratefully grasp it and believe it. It’s becoming well recognised that emotion, values and culture have far more influence on our beliefs and actions than logic and facts.

Not all cultures have been like this. A colleague doing development work in Africa told me in the sixties about the efforts of copper mining companies in central Africa to increase production when the world price went up. Seeking to attract more workers and getting them to work longer, they raised the hourly rate. It would have worked in western countries but in Africa it didn’t. Workers knocked off earlier, once they had enough. “Enough” for them was food, clothing, shelter, a bicycle and education for their kids. After that, they would prefer to play the guitar and socialise. Much of what the west calls “development” has been an effort to change this culture so that more can be produced.

In Thailand the Agri-Nature Foundation has been working for the last 12 years to put the “Sufficiency Economy” advocated by the King into practice. In 80 agricultural learning centres across the country they help farmers and local communities build resilience into their

local economies. The foundations are sufficient food, shelter, basic household products, and a clean environment. They value ancient wisdom and avoid all toxic pesticides. Values of giving and sharing the surplus come ahead of trading it and trade must be based on ethics.

Gandhi has inspired generations of people with his commitment to simplicity and his courage in standing up to oppressive power.

What movements such as these, and I include the Quakers with their traditional testimonies to simplicity and equality, have in common is a shared moral philosophy, an ethical purpose that underpins social cohesion and collective values. Only a widespread change in social values and a reorienting of personal identity will bring it about.

A recent report by WWF and others, *Common Cause – the case for working with our cultural values*, points out that every communication, intentionally or not, conveys values of some sort. There is no such thing as a value-free statement. Values like financial success, personal status and power tend to be opposed to values like empathy, concern for the common good, universalism. The former are unhelpful in solving “bigger than self” problems and the latter are helpful.

Conveying one set of values helps to reinforce them and to suppress the opposite values. So public policy will have two kinds of impact: material impacts (we kept the coal in the ground or stopped nuclear power or got an

energy efficiency law passed) and cognitive impacts (we reinforced – or not - values of concern for the environment or for the most underprivileged).

Maggie Thatcher said her policies set out “to change the heart and soul of the nation.” Changing the economic system would flow easily after that. Policies that reinforce greed, individualism, and competitiveness will have far reaching effects in making further policy changes in that direction better accepted. I believe such a change happened in New Zealand in the mid-1980s when the “greed is good” idea was promoted.

The hopeful news is that everyone holds both sets of values to some degree. Everyone is motivated by self-interest, and everyone has some common interest values that can be activated. The question is the relative strength of these, and what triggers them. A lifetime of living with public policy based on the implicit values that the market will decide, greed is good, the role of the state in the economy should be as small as possible, people who are poor usually have themselves to blame, reinforces values of individualism and competitiveness and suppresses values of community and collaboration and empathy. But they are not gone, only weakened.

If we analyse the Emissions Trading Scheme in this way we should be very worried. The stated purpose of the Act when introduced to Parliament did not even include reducing greenhouse gases. The select committee added that. But it is widely acknowledged that this is not its main purpose and that in fact it has done and will do virtually nothing to achieve that. It is designed primarily

to appeal to values of commercial gain and competitiveness. It is set up to foster speculation in the price of carbon in a “beggar-my-neighbour” kind of way that will not reduce emissions at all, but may help grow “the economy”. In the process it embeds the notion that climate change can be addressed by speculating and making money and reinforces values of greed and materialism. In the four years since it was introduced, that is exactly how it has been used.

In contrast, a carbon charge with the proceeds recycled to the whole community would reinforce the value of community and co-operation, “we are all in this together”. Having reinforced people’s greed and competitiveness with the ETS it will be doubly hard to introduce any climate related policy that requires a concern for the common good.

Finally, let’s return to the question of how society’s values change. They cannot “be changed” by governments – but they can be influenced by leadership and example.

Psychologists suggest people are most influenced by their peer group, family and role models. After that, commercial advertising is insidious and very powerful.

We know that people respond better to positive messages than negative ones. This creates a dilemma. We can praise the benefits of an economy of enough, but unless we also are honest about the impending collapse of the system we have now, why would anyone make the effort to change? People react very differently to the same

information. For some people even a gentle discussion of the facts is enough to make them give up in hopelessness. For others, the message has to be pretty strong to get through. This all reinforces the need for personal conversations with people we know, not just mass communication with no idea how it will be received.

We can also try to remove some of the drivers of the current value system.

I think the first thing I would do is reclaim the taxpayer's share of the \$2.1 billion spent on advertising in New Zealand. There is no reason why we as taxpayers should be subsidising efforts to persuade us to buy what we don't need or want and to live unsustainably. Advertising is currently tax deductible as a cost of doing business. That's about \$600 million of foregone government revenue every year. In an economy where growth is the recognised goal, that makes sense. In an economy of Enough it is daft.

Removing the tax deductibility of advertising other than information at point of sale is a win-win regardless of how business reacts. If firms believe it is so valuable to them that they are willing to pay for it themselves, it would increase government revenue. If firms cut back their advertising it would reduce the constant brainwashing to make us want more. The money saved by firms would be taxable profit, or go into more useful forms of product improvement.

Before anyone gets too excited about doing this right away, of all the policies that have even been hinted at – no-one has ever dared to actually propose it – this has brought down more wrath than anything else in my political memory. It would be a huge fight, but we shouldn't run away from that.

At the same time governments could institute a national conversation about which future we would prefer. Government ministers make hundreds of official speeches where growth is constantly held up as the goal. Imagine the effect on social values if instead they talked about measuring wellbeing rather than growth, quality rather than quantity, and progress towards an economy with enough for everyone.

This is about leadership. A national conversation will be picked up in the media, around the dinner table, at the club, and views will start to change. Regular publication and reporting to Parliament of national statistics on quality of life rather than growth will start to refocus people on what matters. Instead of berating ourselves for not catching up with Australia we could be celebrating our high educational, artistic and sporting achievement, our low crime rate compared with other countries (while committing to get it lower still) our public health system which is light years ahead of the US, our access to open space and an amazing environment.

Most people know, deep down, that as John Lennon said, "Money can't buy you love". But no-one they trust has shown them a different goal they can believe in.

Beyond some general principles, there can be no universal blueprint for an economy of Enough. Each society will have to invent it for themselves. But as the chaos of the failed growth economy increases it may start to look more feasible to more people.

There are some signs of hope. One I mentioned earlier – some respected mainstream sources are starting to get it. Another is the passion and organisation of some young people. The Occupy movement was important not because it offered any detailed solutions – how could a spontaneous movement do that? - but because it changed the language. We now all know about the 1% and the 99% and we know that analysis is right. Even the media when reporting on Occupy events described them as protesting against corporate greed and political corruption – with no quote marks around these terms.

Motivated by the extreme threat of climate change to their generation and their children, 350.org and Generation Zero organised Powershift last December which brought together 700 young people at Auckland University for lectures, workshops, and activist planning. And as far as I could see they did it without a hitch. These young people are much more clear-eyed about the dangers than I or my generation were at their age. They are happy to seek advice from grandparents who have pioneered the values they embrace but it is clear that they are in charge and it is their show.

I believe an economy of Enough is possible – in fact in the medium term it is the only future that is. The system is so complex that it requires deep change. That means a

change in values, expectations, and behaviour. All of us have a role in either making it happen or obstructing it. Society divides now into the Pooh Bears and the Christopher Robins and none of us can avoid choosing which side we are on.