

Enough is Enough

Ideas for a Sustainable Economy in a World of Finite Resources



The Report of the Steady State Economy Conference



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Keynote Presentations and Workshops

Substantial material for the report was derived from the keynote presentations of Peter Victor, Dan O'Neill, Tim Jackson, and Andrew Simms. Part Two of the report captures the content of the conference's ten workshops, which was generated by workshop speakers, chairs, rapporteurs, and other participants:

Workshop	Speaker(s)	Chair	Rapporteur
Limiting Resource Use	Victoria Johnson	Beth Stratford	Dave Abson
Stabilising Population	Roger Martin	Eric Rimmer	Christian Kerschner
Distribution of Income/Wealth	Kate Pickett	John Battle	Kathryn Fitzsimons
Money and the Financial System	Molly Scott Cato, Mary Mellor	Josh Ryan-Collins	Noel Longhurst
Measuring Progress	Saamah Abdallah	Tom Knowland	Sasha Norris
Engaging Politicians and the Media	Franny Armstrong, Ian Christie	Hali Healy	Paul Chatterton
Changing Behaviour	David Fell	Lucie Middlemiss	David Midgley
Employment	Martin Pullinger	Christer Sanne	Blake Alcott
Business and Production	André Reichel	Adam Woodhall	Dorron Otter
Global Issues	Marco Sakai	Oriel Kenny	Tim Foxon

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Forewords

A foreword by Lorna Arblaster and David Adshead

Unlimited economic growth is not possible on a finite planet. Despite this, there is little discussion of an alternative economic system that can meet our needs without growth. The Steady State Economy Conference aimed to promote such discussion. In particular it aimed to identify practical policy proposals to bring about change towards a steady state economy in the UK.

The conference took place on 19th June 2010. Three years earlier to the day, we collaborated with Claire Bastin to host the first Café Economique in a suburb of Leeds. Inspired by the concept of “economic justice for all” (and taking that phrase as the name of our organisation), we set out to develop a forum where members of the public could discuss socio-economic problems and consider innovative solutions. At the first Café Economique, Claire led a discussion on the topic of “Economics in a Full World”. The suggested background reading for the discussion was a paper of the same title, written by economist Herman Daly and published in *Scientific American*.

From this simple beginning, the number of people attending the monthly Café Economique events has grown steadily, requiring us to move to larger venues. How have we achieved this continuing and increasing interest? We meet locally, we invite a speaker to inform the discussion, we use a format that encourages attendee participation, and we address a wide range of socio-economic issues.

In November 2009, Dan O’Neill, the European Director of the Center for the Advancement of the Steady State Economy (CASSE), spoke at the Café Economique. We took great interest in Dan’s ideas and the discussion that they generated, and together we recognised an opportunity to develop the concepts further. The conference and this report are the result of this collaboration between Economic Justice for All and CASSE.

The report, with its extensive set of references, is an excellent primer for anyone interested in the economics of sustainability. It also provides a valuable information resource for “economic discussion and action” groups, and we hope that it will lead to the creation of more such groups, in the UK and around the world.

Increasing awareness of the pressures on our fragile planet obliges us to rethink urgently how we organise our economic and social systems — a complex and challenging task. This report provides an overview of areas where change is needed, specific proposals for change, and questions for further discussion.

A small local group with few resources, Economic Justice for All dared, with CASSE, to organise the Steady State Economy Conference. We hope that you will dare to take forward the ideas in this report, whoever and wherever you are.

*Lorna Arblaster (Conference Chair), and
David Adshead (Co-Organiser)*
Economic Justice for All
Leeds, UK

A foreword by Brian Czech

I have a running dialogue with my steady state friends and colleagues. The subject is best described with the metaphor of a horse and cart. I say, if we want to succeed in replacing the outdated goal of economic growth with a steady state economy, we have to put the horse before the cart. The horse is the public opinion and political will needed for this change. Without this horse, I say, we have little hope of pulling a cart of steady state policies into the economic policy arena.

Many of my friends and colleagues, however, say otherwise. They say I have it backwards. Citizens won't be ready, they say, to support steady state policies unless it is clear in advance just what those policies are.

Sometimes I think my friends and colleagues are right. Certainly one of the most common questions I get, after pontificating on the perils of growth and the need for steady state economics, is "Yes, but how do we do it?" When I describe the horse and cart, emphasising the horse, some of the audience don't buy it. They want to know more about the cart before offering their horsepower.

I suppose we are all onto something. The horse and the cart may have to materialise more or less in tandem. Otherwise the horse may say "that's enough of this" and walk away, as the grass may seem greener in more conventional "sustainability" pastures. On the other hand, even the sturdiest cart of steady state policies would mire down and rust without the horse of public opinion and political will to lead it into action.

So it was mentally agonising for me to miss the first ever Steady State Economy Conference, especially with CASSE as co-organiser with our partner, Economic Justice for All. I went instead to a different conference (Association for Environmental Studies and Sciences) in Portland, Oregon, where many new recruits to the steady state cause were assembled. Meanwhile, the steady state conferees in Leeds were busy constructing and filling a cart full of steady state policies. Theirs was an exciting undertaking. My belated contribution is to wholeheartedly endorse the report of their conference!

Actually the report, aptly titled *Enough is Enough*, provides more than just a cart of public policies for achieving a steady state economy. Part One is mostly about the horse, describing why economic growth has become uneconomic — dangerously so — and describing the alternative: economic degrowth toward a steady state economy. However, the bulk of *Enough is Enough* is found in Part Two, which is all

about the cart of policies. This constitutes the single most complete collection of steady state policy initiatives, tools, and reforms in the literature. That alone makes the report worth its weight in steady state gold. As if that were not enough, Part Three puts it all together into a plan to get the horse and cart moving together to begin the economic transition.

Enough is Enough is an extremely interesting and unique document. It is academic and book-like in length and style, and as well-documented as a Jared Diamond bestseller. Yet it also puts the reader into the venue of a wonderfully orchestrated, interactive, and productive conference. One can almost hear the plenary talks from the podium in Part One, walk the halls to the diverse workshop sessions in Part Two, and reconvene with the conferees in Part Three.

Most conference proceedings, book-like or not, go quickly onto a dusty shelf. I doubt this is the fate of *Enough is Enough*. For one thing, the university instructor may easily construct a summary slideshow from the plethora of colourful figures, tables, and graphs. Some of the graphics will be familiar to students and practitioners of ecological economics; others were developed at the conference or in the aftermath of this creative burst of energy. Beyond its academic uses, *Enough is Enough* has the potential to become a manifesto in the hands of policy reformers working on issues of environmental protection, economic sustainability, and social justice.

But most importantly, in my opinion, is that steady statesmen and ambassadors, present and future, won't miss a beat when confronted with the challenging question of "Yes, but how do we do it?" With a sturdy cart of policies hitched to a horse of public opinion that grows stronger by the day, we are ready to set out towards the steady state economy.

Brian Czech, President
Center for the Advancement of the Steady State Economy
Arlington, Virginia, USA

Summary

This is the report of the first Steady State Economy Conference, held in Leeds, UK on 19th June 2010. The conference had two main aims. The first was to raise awareness about the substantial volume of scientific evidence that shows that economic growth (i.e. continuously increasing production and consumption of goods and services) is (a) not environmentally sustainable, and (b) not improving people's lives in wealthy countries like the UK. The second aim was to identify specific, implementable policies to achieve a *steady state economy* (i.e. an ecologically and socially responsible alternative to economic growth) within the UK. Over 250 economists, scientists, NGO members, business leaders, government employees, and interested citizens attended and contributed.

Keynote speakers at the conference included:

- Peter Victor – Professor in Environmental Studies, York University (Canada)
- Tim Jackson – Professor of Sustainable Development, University of Surrey
- Andrew Simms – Policy Director, **nef** (the new economics foundation)
- Dan O'Neill – European Director, CASSE

The main proposals in this report come from the conference's ten interactive workshops, which explored specific areas where change is needed to achieve a steady state economy. Workshop speakers included Kate Pickett (co-author of *The Spirit Level*), Franny Armstrong (Director of *The Age of Stupid*), Roger Martin (Chair of the Optimum Population Trust), Molly Scott Cato (Economics Speaker for the Green Party), David Fell (Director at Brook Lyndhurst), and many others.

A key theme that came out of the conference, and one that unites many of the ideas in this report, is the concept of *enough*. This report summarises the ideas generated at the conference, and provides insights into the structures and policies that would be needed in an economy where the goal is *enough* instead of *more*. The hope is that these ideas will contribute to the development of a new "macro-economics for sustainability", and help us build a prosperous, non-growing economy in the UK.

The Environmental Limits to Economic Growth

In order to appreciate why an economy based on *enough* is worth striving for, it is useful to examine why an economy that forever chases *more* is destined to fail. In the first place, the economy is a sub-system of the environment. All of the inputs to the economy come from the environment, and all of the wastes produced by it return to the environment. As the economy grows, it requires more resources and discharges more wastes. Since we live on a finite planet with limited resources, it is not possible for the economy to grow forever.

For the vast majority of human history, the size of the economy was small compared to the size of the biosphere. But over the past century or so, the economy has grown

massively, and the balance has shifted. Between 1900 and 2005, world economic output increased by a factor of 24, from \$2 trillion to \$47 trillion.

This incredible increase in economic activity has resulted in an equally incredible increase in the use of resources and energy. Humanity now uses eleven times as much energy, and eight times the weight of material resources every year as it did only a century ago. The appropriation of materials, energy, and land for human activity has profoundly impacted ecosystems and reduced the space available for non-human species, leading to species extinctions and biodiversity loss. As the amount of material extracted from the environment has increased, so has the production of wastes. Emissions of one pollutant in particular, carbon dioxide, are now so large that they are destabilising the global climate.

Recent research indicates that humanity has transgressed three of nine “planetary boundaries”. These boundaries define the safe operating space for the planet. By transgressing them we risk causing abrupt and catastrophic environmental change. Other environmental indicators, such as the ecological footprint, suggest we are in a state of “global ecological overshoot”. We are harvesting resources like forests and fish faster than they can be regenerated, and producing wastes like CO₂ faster than they can be absorbed. The result is the steady erosion of the stock of natural resources and the supply of ecosystem services upon which our economies and societies ultimately depend.

The Diminishing Social Returns of Economic Growth

Even if we could find a way to grow the economy without using up resources or negatively impacting the environment, there are strong reasons to believe that further economic growth in wealthy countries would not be a worthwhile pursuit.

While economic output per capita has more than tripled in countries like the UK and U.S. since 1950, data from surveys of life satisfaction reveal that people have not become any happier. When data are compared across multiple countries, an interesting picture emerges. Happiness and life satisfaction increase with income, but only up until a point. Once people’s basic needs are met and they have *enough* goods and services, economic growth fails to improve people’s well-being.

Economic growth has also failed to deliver lasting solutions to unemployment and poverty. Despite our continual pursuit of rising economic output in the UK, the unemployment rate has bounced up and down over the last forty years. Jobless growth has become a common occurrence. And even with the 24-fold increase in the size of the global economy over the past century, more than one billion people in the world still live on less than \$1 per day, and a total of 2.7 billion live on less than \$2 per day. Someone is profiting from global economic growth, but it’s not the world’s poor.

These findings seriously call into question the continued pursuit of economic growth in countries like the UK. Given that global resource use is already at an unsustainable level, further growth in wealthy countries only serves to reduce the amount of ecological space available to poor countries, where economic growth is still needed to alleviate poverty.

The Desirable Alternative to Economic Growth

The challenge then is to figure out how to sustain economies that already have enough goods and services, without relying on consumption growth.

A *steady state economy* represents a positive alternative to the pursuit of endless economic growth. It is an economy that aims to maintain a stable level of resource consumption and a stable population. It is an economy where energy and resource use are reduced to levels that are within ecological limits, and where the goal of maximising economic output is replaced by the goal of maximising quality of life.

There are four key features of a steady state economy: (1) sustainable scale, (2) fair distribution, (3) efficient allocation, and (4) high quality of life. *Sustainable scale* means that the size of the economy fits within the capacity of ecosystems to provide resources and absorb wastes. *Fair distribution* means that people have equal opportunities to obtain wealth and income, and limits to inequality prevent big gaps between the rich and the poor. *Efficient allocation* means that the power of markets is harnessed appropriately (taking account of where markets work and where they don't) to allocate resources among competing uses. And an emphasis on *high quality of life* means that economic growth takes a backseat to things that really matter to people, like health, well-being, secure employment, leisure time, strong communities, and economic stability.

Proposals for a Steady State Economy

The Steady State Economy Conference used interactive workshops to investigate ten key areas where change is required to achieve a steady state economy. Below we present a summary of the main proposals that were put forward in the workshops. For each proposal we briefly explore why it is necessary, and how it might be implemented. The proposals should not be viewed as the definitive answer for how to achieve a steady state economy, but they provide a good starting point for further debate and action.

1. Limit Resource Use and Waste Production

Why? To achieve a steady state economy, resource use and waste production must be stabilised and brought within ecological limits. Renewable resources, such as fisheries and forests, should be harvested no faster than they can be regenerated. Non-renewable resources, such as fossil fuels, should be used no faster than their waste products (e.g. CO₂) can be absorbed.

How? Caps should be set on the use of specific resources, based on the best scientific evidence available about ecological limits. These caps should be set from the top down, starting at the global level and filtering through international regions, nations, and local communities. The power to manage resources within the caps should reside at the local level, however, with individuals and grassroots organisations.

Any new resource use policy must ensure that all members of society receive a fair share of the limited supply of resources. A detailed system will be required to

measure not only the material throughput of the economy, but also the social and environmental consequences of that throughput.

2. Stabilise Population

Why? All else being equal, the total resource use of a country will increase when either the number of people living in the country increases, or the amount that each of these people consumes increases. To achieve a steady state economy, it is therefore necessary to stabilise — not just per capita resource use — but also population numbers. We need smaller footprints, but we also need fewer feet.

How? To stabilise population in the UK, the government should develop, adopt, and implement a *non-coercive* population stabilisation policy. This policy should aim to balance immigration and emigration, and promote incentives to limit family size to two or fewer children. Moreover, population issues should be added to the job description of an inter-departmental minister, to assess the effects of population growth and recommend other potential stabilisation measures.

To stabilise population globally, the UK should support policies that provide education, access to birth control, and equal rights for women everywhere. There are roughly 80 million unplanned pregnancies per year worldwide — a number that is almost equal to annual global population growth. If access to family planning could be provided to all women worldwide, this single step would go a long way towards stabilising global population.

3. Limit Inequality

Why? Economic growth is often supplied as an excuse to avoid dealing with poverty and inequality. The conventional wisdom is that “a rising tide lifts all boats”, but this trickle-down approach has not worked. The gap between the richest and poorest people in the UK has widened considerably over the past thirty years. The richest tenth now earns 14 times more than the poorest tenth. Such high levels of income inequality are associated with a variety of health and social problems, including decreased trust, increased mental illness, and higher crime rates. Policies that directly address inequality are required to alleviate these problems, especially in a non-growing economy.

How? To achieve greater equality, efforts should be made to democratise the institutions where inequalities originate, in particular the places where people work. Policies that promote employee ownership, co-operatives, and other models of democratic control should be pursued to reduce inequality over the long term. Such models allow people to determine wages and salary differentials for themselves, and thus move towards a steady state democracy.

Progressive taxation and generous social programmes may also help to reduce inequality and eliminate poverty, particularly in the short term. A *citizen's income* would fight poverty by providing an unconditional, automatic payment to every individual as a right of citizenship. A *maximum pay differential* would reduce inequality by limiting the income of the highest paid employee in an organisation to a certain multiple of the lowest paid employee.

4. Reform the Monetary System

Why? Almost all of the money in circulation in the UK is created by private banks in the form of interest-bearing loans. Banks are able to create money because they can issue loans far in excess of their deposits. This debt-based monetary system drives four things: (1) *economic growth*, as the need to pay back an increasing amount of debt requires an increasing amount of economic activity, (2) *inflation*, as the money supply tends to increase faster than the volume of goods and services produced, (3) *instability*, because if the banks stop lending, the economic system collapses, and (4) *inequality between countries*, as the currencies of a small number of nations have become the dominant “reserve currencies” around the world. If the economy is to be stabilised, then the money supply must be as well.

How? Private banks should be prohibited from creating money out of thin air, and control of the money supply — a public resource — should be transferred to a public authority such as the Bank of England. This public authority should decide the amount of money necessary to facilitate exchange in the economy, create it debt-free, and transfer it to the government to spend into existence. To prevent inflation, government taxation and expenditure should be linked to the system of money creation. At the same time, communities should be encouraged to create their own currencies to support local economic activity, and the UK should promote and participate in a global negotiation to create a neutral international currency to replace the reserve currencies in use today.

5. Change the Way We Measure Progress

Why? The main economic indicator in use today is gross domestic product (GDP). GDP is a good measure of economic activity — of money changing hands — but a poor measure of progress or well-being. It lumps desirable expenditures (e.g. spending on food, entertainment, or investment in education) with undesirable expenditures (e.g. the costs of war, crime, pollution, and family breakdown). New indicators that do a better job of tracking what we truly care about are required to supplement or even replace GDP.

How? A new system of indicators should be created that separates *ends* (i.e. goals) from *means* (i.e. the way to achieve these goals). The key goal to strive towards in a steady state economy would be *sustainable and equitable human well-being*, instead of GDP growth (which is only one means towards this end).

The set of indicators should include three groups: the environment, the economic system, and human well-being. Each group should include one headline indicator and a number of detailed sub-indicators. Potential headline indicators for each group include:

Indicator Group	Potential Headline Indicator	Description of Potential Headline Indicator
Environment	Ecological Footprint	Biologically productive area necessary to generate the resources consumed by a nation, and absorb the wastes produced.
Economic System	Income Inequality	Size of the gap between society's richest and poorest citizens.
Human Well-being	Happy Life Years	Combination of life expectancy (an objective measure) and life satisfaction (a subjective measure).

6. Secure Full Employment

Why? In the current economic system, economic growth (i.e. increasing production and consumption) is relied upon to maintain or increase job opportunities. In a steady state economy, it would not be possible to increase production and consumption if this resulted in an increase in resource use and waste emissions. All else being equal, with less production, there would be less work to be done in the economy, which would result in rising unemployment unless new policies were adopted to prevent this from happening.

How? Instead of using technological progress to produce more goods and services (as we tend to do today) we should use it to increase leisure time by gradually shortening the paid working day, week, year, and career. Individuals should be given the freedom to adjust their working patterns to their preferences, while support and incentives should be offered to encourage an overall reduction in working time. The gradual reduction of working time would help keep unemployment low by distributing available work more equally.

If unemployment were still a concern in the transition to a steady state economy, the government could act as “employer of last resort”, and guarantee jobs in the same way that it guarantees primary education and medical care. A guaranteed jobs policy would provide incomes to those unable to find employment, allow useful public works to be completed at relatively low cost, and relieve the social and psychological problems that arise when people want to work but are unable to find a job.

7. Rethink Business and Production

Why? Conventional businesses strive to increase financial profits by reducing costs and competing for market share. The pursuit of ever-increasing profits drives firms to boost production, which increases resource use. Investors tend to put their money into expanding sectors of the economy, encouraging even more growth. This business-as-usual approach cannot continue. Firms, with the support of government, must adapt in order to operate within ecological limits.

How? Instead of attempting to maximise and continually grow profits, firms should aim to achieve “right-size profits”. A firm’s total revenue should be large enough to allow it to be financially viable (i.e. to meet capital costs), but not so large as to

cause environmental damage. An individual firm would require two new pieces of information to determine whether it was achieving right-size profits: (1) a measure of its *total ecological impact*, and (2) an *ecological allowance* to compare this impact to. This information would help businesses rescale their level of economic activity to be sustainable.

A steady state economy will also require a shift towards alternative forms of business organisation such as co-operatives, foundations, and community interest companies. These organisational forms are not pre-occupied by growth in the same way as profit-maximising shareholder corporations. The primary goal of community interest companies, for example, is to achieve a socially beneficial aim; financial profit is a secondary motive. Policy makers should encourage these alternative forms of business by (1) making it simpler to set up (or change to) these forms, and (2) by taxing away excess profits in shareholder corporations.

8. Improve Global Co-operation

Why? Global resource use is already at an unsustainably high level. Yet many nations need to increase their consumption of resources to alleviate poverty and allow people to meet their basic needs. These nations stand in stark contrast to wealthy countries like the UK where the benefits of growth have already been realised. The UK and other wealthy countries must stabilise, if not *degrow*, their economies in order to provide the ecological space needed for poorer nations to grow.

Problems could arise if some nations make the transition to a steady state economy, while others are still pursuing growth. Wealthy, non-growing economies and developing, expanding economies must therefore work together on the specific mechanisms that will allow them to co-exist and co-develop in a mutually supportive, fair, and flourishing manner.

How? International organisations such as the United Nations, World Bank, International Monetary Fund, and World Trade Organisation should be democratised so that they represent the interests of the majority of people on the planet. Wealthy nations should promote technology transfers to developing nations, to eliminate the harmful dependency of the South on the North.

Where practical, goods and services should be produced locally. Tariffs should be used to protect industries in steady state economies from competition with industries in countries where environmental and social costs are not being internalised. The revenue from these tariffs could be used for international aid to developing countries, in particular to help them develop in less materially intensive ways. Capital controls, and minimum residency times for foreign investment, could be used to prevent capital flight if this were a problem.

9. Change Consumer Behaviour

Why? The social norm of consumerism, which values “consuming” over “doing”, “being”, or “producing”, dominates society. This dominance is problematic for several reasons: (1) consumerism requires that people forever consume *more*, which

is not possible on a finite planet; (2) happiness derived from consumption is transitory; no matter how much individuals consume, they never achieve fulfilment; and (3) consumerism creates and reinforces systemic inequalities. The challenge for a steady state economy is to create a new social norm in which the vast majority of citizens routinely choose *enough* instead of *more*.

How? The shift towards a “mass behaviour of enoughness” will require the rapid diffusion of new values through the multiple networks that make up society. Some actions that could help change behaviours include: recruiting influential individuals as agents of change, supporting organisations with objectives that challenge or contradict consumerism, promoting the benefits of non-materialistic lifestyles, creating the infrastructure to allow new forms of corporate and civic entities to emerge, and overcoming resistance from large corporations and the state.

There is an implied acceptance across most of society that the self-seeking, individualistic values that form the backdrop to consumerism are reasonable and necessary. This acceptance needs to be reversed. Ordinary people can set a positive example by living values that reject consumerism. Motivation is also key to achieving behavioural change. Consumerism only appeals to some of the core human motivations (i.e. hedonism, status, and achievement). Love, connectedness, friendship, spirituality, and creativity are also powerful sources of motivation, and it is crucial to tap into these.

10. Engage Politicians and the Media

Why? Substantial academic research indicates that economic growth cannot and should not remain the policy goal of wealthy nations, and yet politicians and the media rarely discuss this viewpoint or the potential of the steady state alternative. In order to build an inspiring movement aimed at achieving a steady state economy, politicians and the media must end their silence on the alternative to perpetual economic growth.

How? New forums should be identified (or created) to engage decision makers and opinion influencers in an active debate about the problems of growth and potential economic solutions. There are many places where limits to growth are already recognised or discussed in policy (e.g. green belts, rejection of “predict and provide” road policy, carbon budgets, etc.). Expanding the dialogue in these forums could help bring steady state economics into the mainstream.

There is also a need for more rigorous modelling and elaboration of how a steady state economy would work in practice, and how ecological limits can be reflected and respected in policy. Agreement should be sought among leading business schools and economics departments to include compulsory coverage, within degree courses, of the different views concerning sustainability and the limits to growth.

Finally, steady state economics needs a more public and accessible image, as well as a new name that resonates with the public. The production of an independent film that takes people on an emotional journey could be a powerful way to break into the public consciousness.

Creating an Economy Built to Last

This report brings together the ideas of the more than 250 people who attended the Steady State Economy Conference in Leeds. Some of the ideas will no doubt seem radical, and we do not expect readers to agree with every suggestion. Even we, as the authors, have differences of opinion on specific issues. But the general direction that change must take is becoming increasingly clear — from *more* to *enough*, from *growth* to *stability*.

The ideas presented in this report form the beginning of a blueprint for a sustainable, fair, and efficient economy. This blueprint includes a solid foundation (i.e. the features of the economy we want), a sturdy support structure (i.e. policies designed to achieve this economy), and a roof that is held up by this support structure (the goal of sustainable and equitable human well-being).

We must build a new, more resilient economy based on this blueprint, but we cannot start from scratch. We are saddled with the current economic system, which is in need of extensive repairs. The repair work will require us to re-envision fundamental economic concepts such as investment, productivity, and ownership:

Economic Concept	How it's Viewed in the Current Economic System	How it Would be Viewed in a Steady State Economy
Investment	Investment is primarily a way to generate financial returns. It's about using money to make money.	Investment is also a way to generate social and environmental returns. It entails forgoing present-day consumption and using the resources saved to build a better future.
Productivity	Maximising productivity (i.e. producing more and more output per each hour of work) is in the best interests of society.	Optimising productivity, instead of maximising it, is in the best interests of society. Productivity gains should be used to reduce unpleasant work, but they should not be used to displace the work that brings joy and meaning to people's lives.
Ownership	Ownership of the means of production falls into one of two categories: public and private.	Ownership is not a black-and-white choice between public and private. There is a whole spectrum of other innovative ownership models in between.

Boldness Moving Forward

We hope that this report generates debate, because debate is needed. But this report is more than a collection of ideas to be debated. It is also a call to move boldly from ideas to action. We must begin the transition to a steady state economy without delay if we are to achieve well-being for all people within ecological limits. To move forward we must:

- **Publicise the downsides of growth and the upsides of a steady state economy:** The political movement to transition to a steady state economy needs a home and an inspiring name. The concepts need to be vetted and rigorously

discussed in public. Politicians and other influential individuals need to drive publicity for the transition.

- **Build credibility:** People want to know how a non-growing economy would work in practice, and what it would mean for them on a day-to-day basis. Researchers need to provide answers that satisfy people's concerns in order to build strong credibility for the steady state alternative.
- **Start implementing the policies:** The policies proposed and discussed at the conference and detailed in this report are positive responses to a system that isn't working. They are mutually supportive, but their implementation will require society to overcome entrenched ways of doing things. The most politically feasible policies should be implemented first (taking advantage of opportunities), to open the door for more difficult changes.
- **Encourage behavioural change:** The economy is a human construct. Economic "laws" are not like the law of gravity. They can be altered. But at the end of the day, if we want to change the economy, then people must also change their behaviours. This may sound like an intimidating task, but it's not impossible. All we need to do is look at the inspiring ways in which culture and behavioural norms have shifted over time. In today's hyper-connected world, changes can happen faster than at any point in history.

But to achieve a steady state economy we must begin the transition now — for time is the ultimate limit that we face, and it's the one commodity that we can never have enough of.



Part One
Questions of Enough

1. Introduction

“Here is a point in time where our institutions are wrong. Our economics is not fit for purpose. The outcomes of this economic system are perverse. But this is not an anthem of despair. It’s not a place where we should give up hope. It’s not an impossibility theorem. The impossibility lives in believing we have a set of principles that works for us. Once we let go of that assumption anything is possible.”

— Tim Jackson, University of Surrey
Keynote Speaker

On 19th June 2010, a remarkable group of people came together in the city of Leeds. They met for a unique event: a conference whose purpose was to explore the idea of a *steady state economy* — an ecologically and socially responsible alternative to economic growth. The conference was organised by two non-profit organisations: Economic Justice for All and CASSE (the Center for the Advancement of the Steady State Economy). Over 250 economists, scientists, NGO members, business leaders, government employees, and interested members of the public attended and contributed.

The conference had two main aims. The first was to raise awareness about the growing body of scientific evidence that shows that economic growth is (a) not environmentally sustainable, and (b) not improving people’s lives in wealthy countries like the UK. The second was to identify specific, implementable policies to achieve a steady state economy in the UK.

Although much has been said over the past few years about the impossibility of endless economic growth, and the social problems associated with its pursuit, far less is known about the alternative, or how it would work. This report, which draws together the many ideas put forward at the conference, is an attempt to contribute to the development of a new “macro-economics for sustainability”. It includes concepts from both the natural and social sciences, as well as ideas about social change. It presents concrete policy proposals in order to put ideas on the table and stimulate further debate about how to build a prosperous, non-growing economy.

The main proposals in this report come from the conference’s ten interactive workshops, which explored specific areas where change is needed to achieve a steady state economy. Each workshop began with a policy proposal from an invited speaker, followed by a facilitated discussion among workshop participants, who were asked to reflect on the following questions:

- Will the proposal work, and if not, how should it be modified?
- What actions can be taken to make the proposal happen?
- What obstacles exist to implementing the proposal?
- What questions still need to be answered?

A key theme that came out of the conference, and one that unites many of the ideas in this report, is the concept of *enough*. “Enough” is an outwardly unspectacular word with extraordinary properties. It is useful in everyday language, and it is readily understood by most people. For example, a child can easily comprehend a parent’s declaration of “That’s enough.” Neither a complex series of calculations nor a long period of contemplation is required to answer the question, “Is that enough?” A simple “yes” or “no” does the trick.

Even though it is relatively easy to understand the concept of “enough” (we can readily recognise when we’ve had enough to eat or not enough sleep), the word has the peculiar ability to adopt either a positive or a negative connotation. In the positive sense, “getting or having enough” corresponds to feelings of satisfaction, fulfilment and well-being. On the other hand, “Enough!” is an exclamation that comes to mind when we feel upset, overwhelmed or frustrated. The connotation of “enough” is dependent upon just what it is that we’ve had enough of.

It is important to keep this feature of “enough” in mind as we ask the question, “How much is enough?” A growing body of evidence, both scientific and anecdotal, is telling us that we have enough (positive connotation) when it comes to goods and services, and that we’ve had enough (negative connotation) environmental degradation and social dysfunction.

Part One of this report discusses this evidence and summarises the key criticisms of the economic growth model, but it does not explore them in detail. These issues are already covered in many other excellent books, reports, and articles.¹ Part One continues by describing the general characteristics of a steady state economy, a positive alternative to economic growth. The material discussed in this part of the report is largely based on the keynote presentations made at the conference by Peter Victor, Dan O’Neill, and Tim Jackson.²

Part Two of the report conveys the findings of the conference’s ten interactive workshops. The material in this part is largely drawn from the proposals made in the workshops,³ and the discussions that followed. The section summarises many intriguing ideas to build a better economy and investigates approaches to:

- Limit resource use and waste production;
- Stabilise population;
- Achieve fair distribution of income and wealth;
- Reform the monetary system;
- Change the way we measure progress;
- Secure full employment;
- Rethink business and production;
- Improve global relationships;
- Shift behaviour away from consumerism; and
- Engage politicians and the media.

Finally, Part Three draws together the themes that emerged from the conference into a blueprint for an economy that is built to last, and discusses a plan to move from

ideas to action. The last chapter of the report is inspired by Andrew Simms' keynote presentation, which emphasised the need for boldness.

The Steady State Economy Conference initiated a long-overdue conversation about the steps we must take to move towards a sustainable economy. The conference generated some world-changing ideas for achieving an economy where the goal is *enough* instead of *more*. We invite you to engage with, develop, and take these ideas forward.

2. How Much is Enough? ⁴

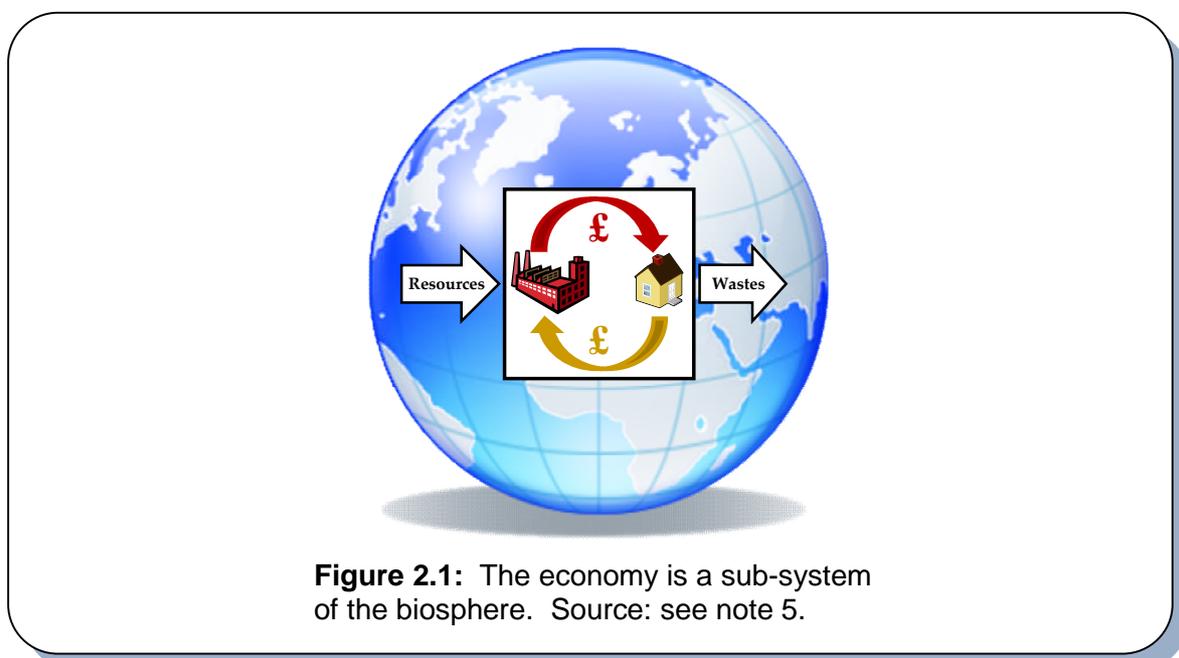
“If you don’t have some sort of appreciation of the economy as being embedded in the natural systems of the planet, you’re not going to get very far understanding why we’ve got the problems we have with the environment, and how we’re going to solve them.”

— Peter Victor, York University
Keynote Speaker

The Economy and the Environment

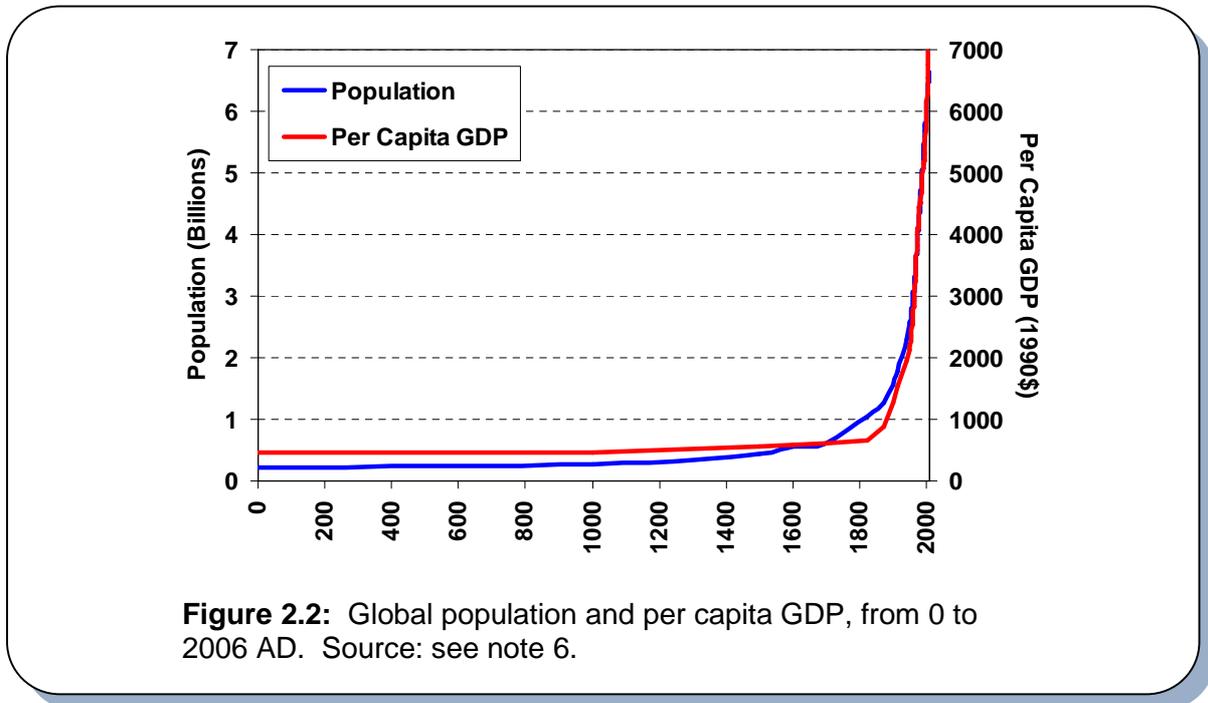
In order to appreciate why an economy based on *enough* is worth striving for, it is useful to discuss the problems associated with an economy that forever chases *more*.

The main reason why “more” is problematic is that the economy is a sub-system of the biosphere. All of the inputs to the economy come from the environment, and all of the wastes produced by it return to the environment (Figure 2.1). Stable and productive ecosystems that are capable of supporting life are a prerequisite for any sort of economic activity. To put it simply: No environment, no economy.



The size of the economy is typically measured using *gross domestic product (GDP)*. GDP is an indicator of economic activity — of money changing hands. For the vast majority of human history, the size of the economy was small compared to the size of the biosphere. But over the last hundred years or so, this balance has changed remarkably due to the increase in the number of people in the world and the growth

in each person's consumption of goods and services. Between 1900 and 2006, world population increased from around 1.5 billion people to 6.5 billion people — a factor of four increase. At the same time, average per capita GDP increased from \$1200 to \$7300 per person — a factor of six increase (Figure 2.2). The result is that world GDP increased by an astounding factor of twenty-four over the last century, from \$2 trillion to \$47 trillion.⁶



On its own, an increase in GDP would not be a problem, except that economic activity is tied very closely to energy and resource use. As the economy grows, more energy and resources are required, and more wastes are produced. Due to economic growth, humanity now uses eleven times as much energy, and eight times the weight of material resources every year as it did only a century ago (Figure 2.3). The vast majority of this increase occurred during the last fifty years.⁷

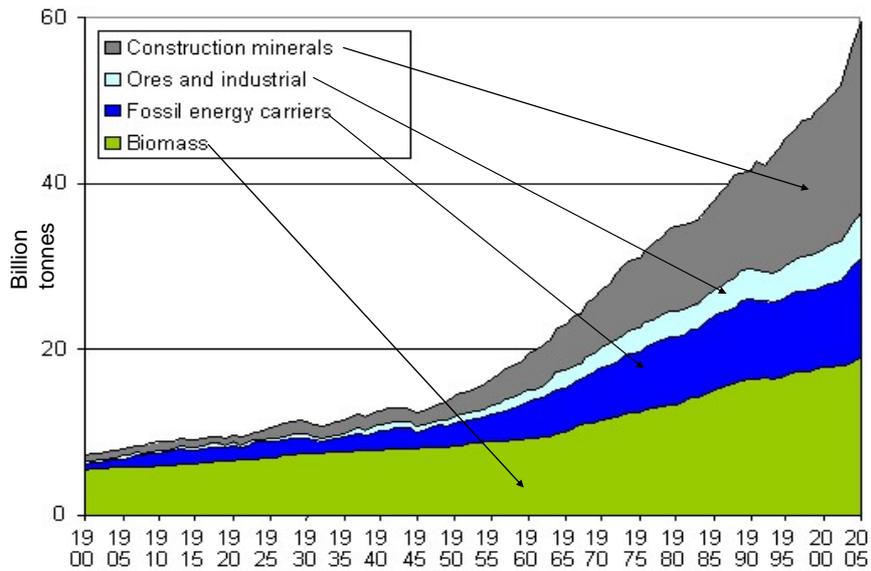


Figure 2.3: Global material use (including minerals, biomass, and fossil fuels), from 1900 to 2005. Source: see note 7.

The global economy is now so large that it is undermining the natural systems on which it depends. The result is a wide range of global environmental problems: climate change, biodiversity loss, stratospheric ozone depletion, deforestation, soil degradation, and the collapse of fisheries. The list goes on.

In a landmark study published in the journal *Nature* in 2009, Johan Rockström and colleagues identified the specific areas in which the economy is placing an excessive burden on the biosphere.⁸ They analysed a set of nine “planetary boundaries”, each of which defines the safe operating space for humanity on the planet. The nine boundaries relate to the following earth-system processes:

- (1) climate change;
- (2) biodiversity loss;
- (3) nitrogen and phosphorous cycles;
- (4) stratospheric ozone depletion;
- (5) ocean acidification;
- (6) global freshwater use;
- (7) change in land use;
- (8) atmospheric aerosol loading; and
- (9) chemical pollution.

The authors were able to determine safe operating boundaries for the first seven of the above processes. For three of these processes (climate change, biodiversity loss, and the nitrogen cycle), humanity is now exceeding the planet’s safe operating space, and by a large margin in some cases (Figure 2.4). The potential consequences are severe: the authors warn that transgressing one or more of the planetary boundaries could lead to catastrophic environmental change at the continental to planetary scale.⁹

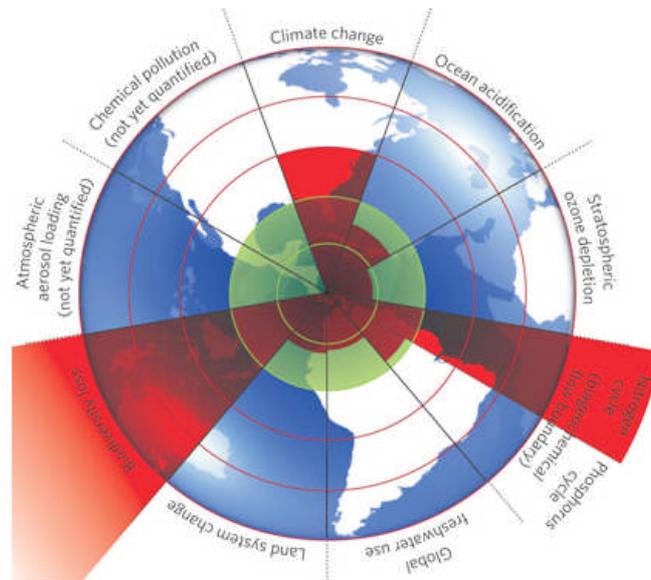


Figure 2.4: Planetary boundaries. The inner green shading represents the proposed safe operating space for planetary systems, and the red wedges represent the current position for each system. Source: see note 8.

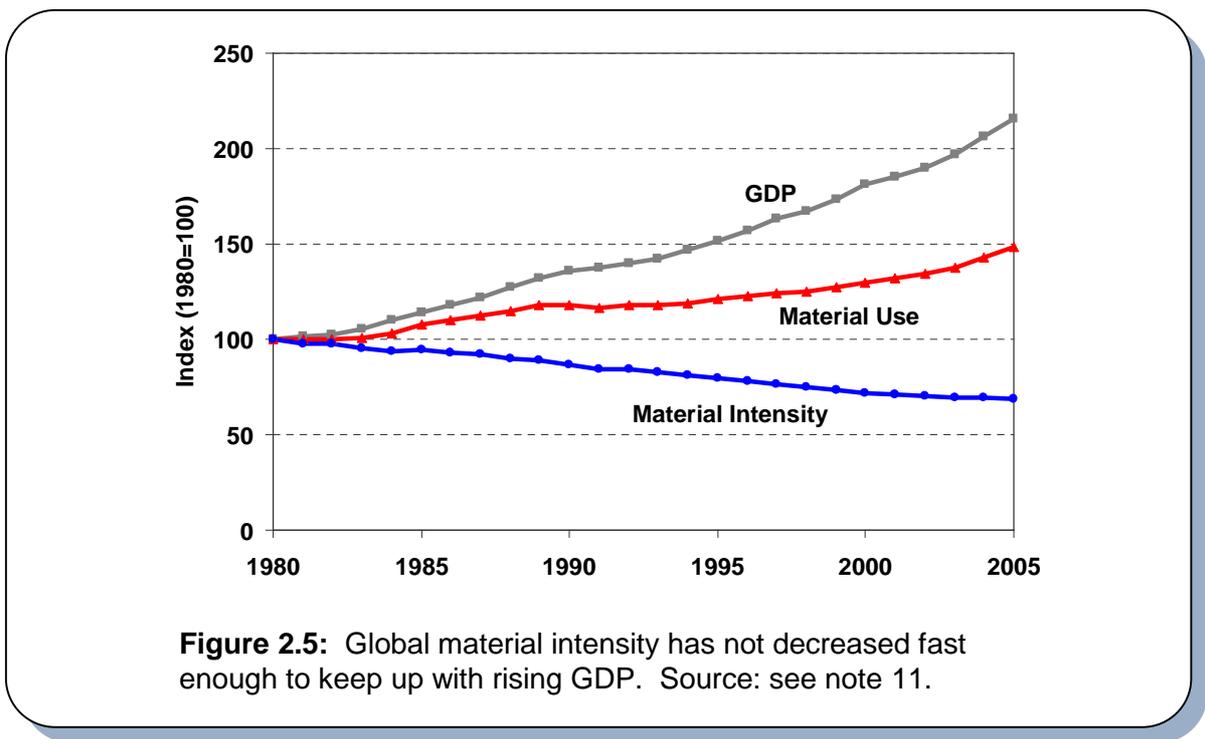
Other analyses, such as those conducted by the Global Footprint Network, support the Rockström study. The ecological footprint is a measure of how much biologically productive land and water a population requires to produce the resources it consumes and absorb the wastes it generates, using prevailing technology and resource management practices. In 2009, humanity used 40 percent more resources than the earth could regenerate over the course of the year.¹⁰ This situation is called “ecological overshoot”, and it’s akin to living in debt. We can only continue to consume as much as we are by liquidating the planet’s natural resources or overwhelming its waste absorption capacities. For example, we can cut forests faster than they grow back and emit carbon dioxide faster than it can be absorbed by oceans and forests. Although we can behave in this way for a short time, overshoot ultimately depletes the resources on which our economies and societies depend.

In short, the global economy has become too large for the encompassing biosphere. So long as this situation continues we run the risk of causing an environmental catastrophe. And even if we manage to avoid such a catastrophe, the steady depletion of resources is reducing the long-term carrying capacity of the planet, and with it the capability of future generations to flourish.

Can Technology Save Us?

A key question to address is whether technological progress can get us out of this mess. Can technology, or the shift to a service-based economy, enable us to reduce our global ecological footprint to within the carrying capacity of the planet while the economy still grows? In other words, can we break the link between economic activity and resource use?

The historical evidence is not encouraging. Between 1980 and 2005, the material intensity of the global economy (i.e. the amount of biomass, minerals, and fossil fuels required to produce a dollar of world GDP) decreased by 31 percent. This is a remarkable improvement in efficiency, and it is well worth celebrating the technological innovations that made this possible. And yet, while these improvements were being made, world GDP grew by 116 percent, such that total resource use still increased by 49 percent (Figure 2.5).¹¹ In other words, the gains made in efficiency were overwhelmed by the increase in the size of the economy. The picture is almost identical for global energy use: energy intensity decreased by 24 percent over the same period, and yet total energy use rose by 59 percent.



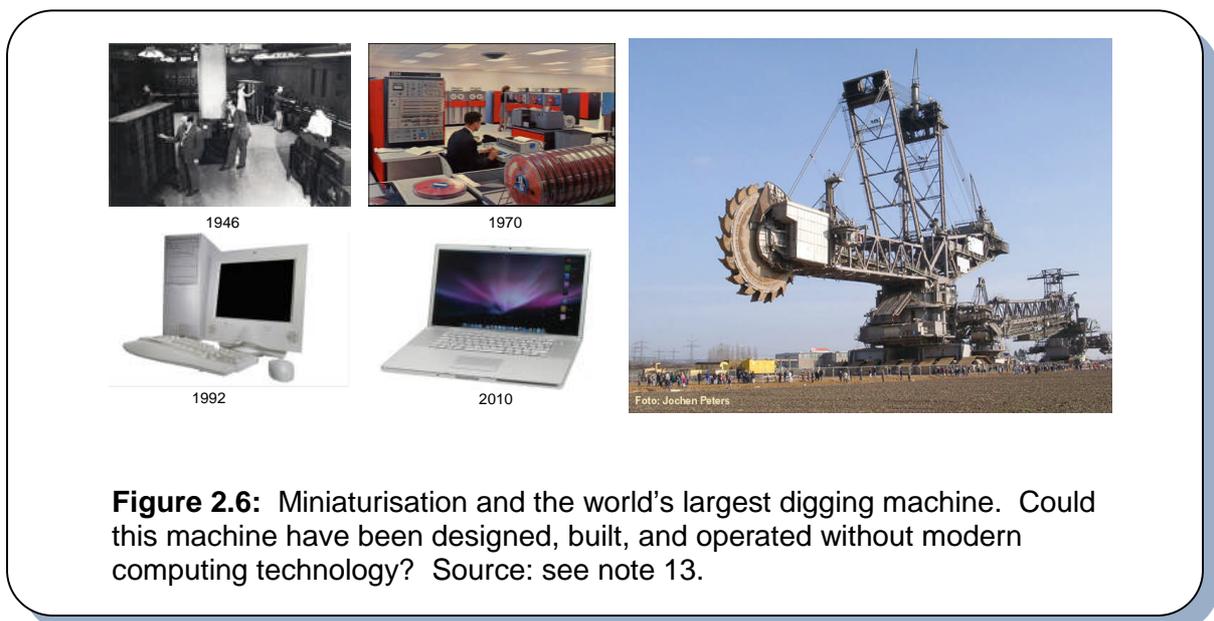
It is possible that we simply haven't been trying hard enough. Perhaps with major investment in new technologies we could improve resource efficiency fast enough to counteract rising GDP.

However, there are reasons to suspect that an improved "techno fix" strategy would still not be sufficient. One of these reasons is the "rebound effect", which was first described by William Stanley Jevons in his 1865 book *The Coal Question*. Jevons observed that the invention of a more efficient steam engine meant that coal became a viable fuel for many new uses. This ultimately led to increased coal demand and greatly increased coal consumption, even as the amount of coal required for any particular use fell. As Jevons stated, "It is a confusion of ideas to suppose that the economical use of fuel is equivalent to diminished consumption. The very contrary is the truth."¹²

In short, new technologies that reduce resource use also reduce operating costs; this frees up money which can then be spent on additional consumption, often

undermining (or sometimes even overtaking) the original efficiency gains. Improvements in automobile fuel-efficiency provide a good example. As cars become more efficient over time, using less fuel per mile travelled, the cost of driving falls. People may use the money saved to drive further, or more often, undermining fuel savings. Alternatively, they might spend this money on a different activity altogether, such as a holiday in Spain, increasing fuel use overall. Either way, material and energy savings predicted on paper often fail to materialise in the real world.

A second reason to be sceptical of the techno fix option is that although some technologies (such as wastewater treatment plants) can help alleviate the environmental impacts of growth, others may cause unforeseen increases in energy and resource use. The rapid evolution of computer technology provides a good example. Technological progress in the field of miniaturisation has vastly reduced the size of early computers, and expanded their processing power. The change is truly astonishing, and it has provided many tangible benefits. However, miniaturisation has also allowed us to create new machines and engage in economic activities that extract natural resources at rates previously unimagined (Figure 2.6). Without the power of computers (coupled with an abundance of cheap energy), it is unlikely that mining, fishing, timber extraction, and farming would be possible at the scale we see today.



The key message regarding technological progress is that it is helpful for managing some of the impacts associated with economic growth, but it is not sufficient to overcome them. This doesn't mean that we should abandon efforts to develop new technologies or discourage innovation. On the contrary, we must invest heavily in the infrastructure for a low carbon economy. But this alone will not be enough. If resource and energy use are to be brought within ecological limits, then we must address the scale of economic activity as well.

The Economy and Society

Although economic growth has come at a large environment cost, it has also brought many benefits. People now have access to more material goods and more information than at any point in history. They can move about more freely and enjoy technologies that weren't conceivable just a few decades ago. We have, in other words, become quite wealthy.

Let us suppose for a moment that we could find a way to grow the economy without using up resources or negatively impacting the environment. Would continued economic growth in wealthy countries like the UK be a worthwhile pursuit? Would a larger economy improve our quality of life, alleviate poverty, and provide full employment — or does further economic growth stand in the way of achieving these goals?

Data from surveys of happiness and life satisfaction can help answer the first of these questions. In these surveys, people are typically asked to rate their level of life satisfaction on a numerical scale (from 1 to 10 for example). When these data are compared against GDP, a striking picture emerges. Although GDP per capita has more than tripled in countries like the UK and U.S. since 1950, data from life satisfaction surveys reveal that people have not become any happier (Figure 2.7).¹⁴ As Peter Victor remarks in his book *Managing Without Growth*, "Americans have been more successful decoupling GDP from happiness than in decoupling it from material and energy."¹⁵

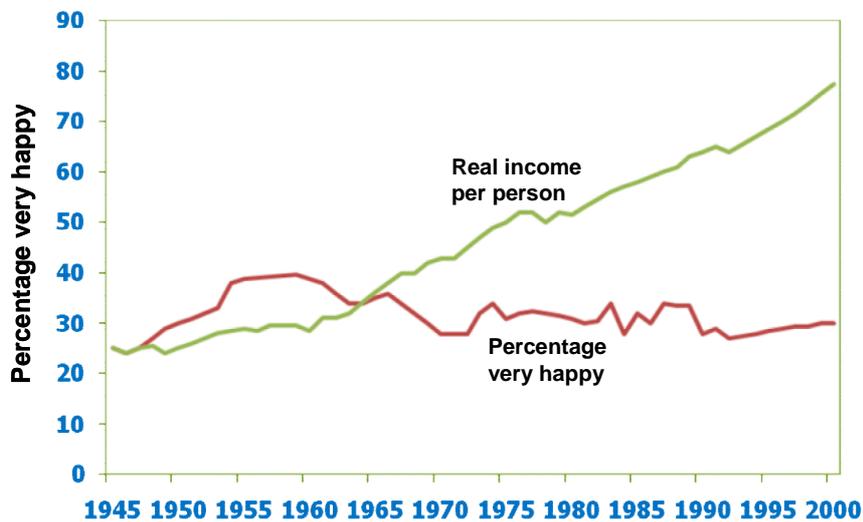
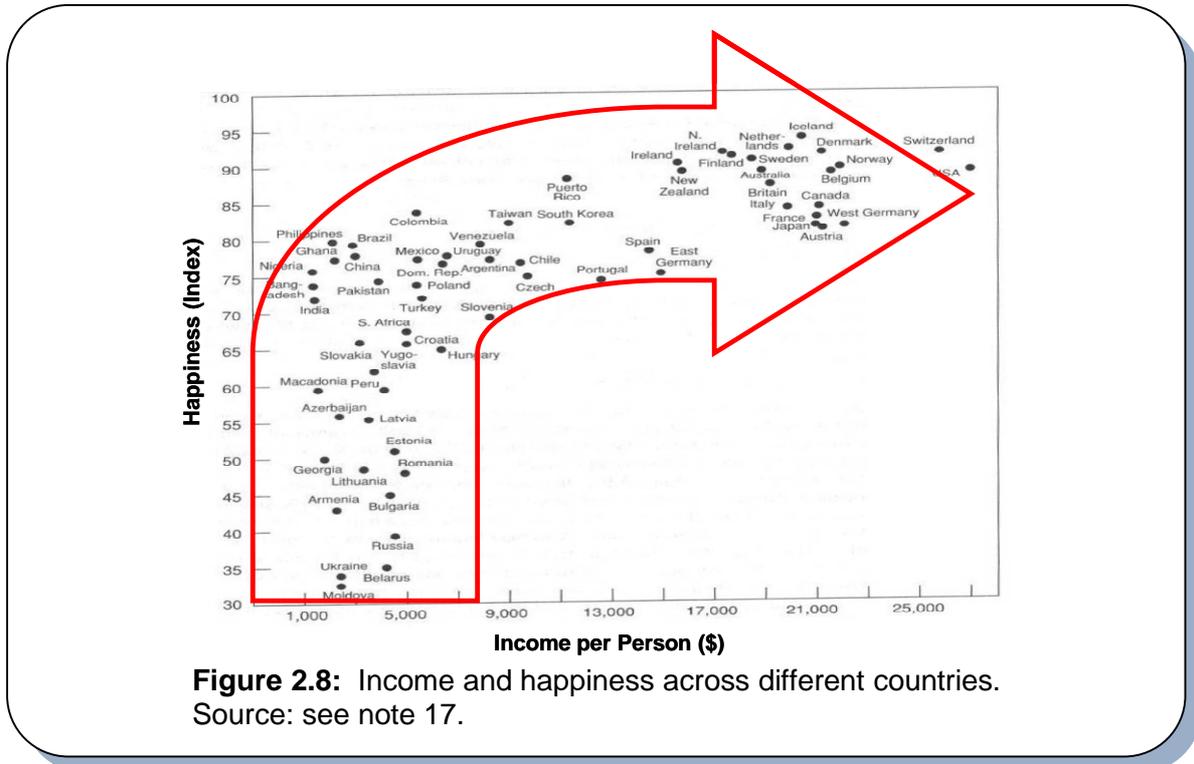


Figure 2.7: Income and happiness in the United States.
Source: see note 12.

When data are compared across countries, the picture becomes even more interesting. Happiness and life satisfaction *do* tend to increase with income, but only up until a point. Beyond an income of about \$20,000 a year, additional money does not appear to buy additional happiness (Figure 2.8).¹⁶ Once people's basic needs

are met and they have *enough* goods and services, economic growth fails to improve people's lives.



This finding seriously calls into question the continued pursuit of economic growth in rich countries like the UK. With global resource use already at an unsustainable level, further growth in rich countries only serves to reduce the amount of ecological space available to poor countries, where economic growth is still needed to get people out of poverty.

Nevertheless, it is often argued that *global* economic growth is the best way to reduce poverty in developing countries. After all, reducing poverty without global growth would require the redistribution of income from rich countries to poor countries. Given that the rich are more powerful than the poor, redistribution is often portrayed as being a less feasible option than growth. In the view of Anne Krueger of the International Monetary Fund (IMF), “Poverty reduction is best achieved through making the cake bigger, not by trying to cut it up in a different way.”¹⁸

The ever-expanding cake is a seductive idea (or would be in the absence of ecological limits), but it has not solved the global poverty problem to date, and shows no signs of doing so. Despite the 24-fold increase in the size of the global economy over the past century, more than one billion people in the world still live on less than \$1 per day, and a total of 2.7 billion live on less than \$2 per day.¹⁹ Economic growth has been cited by the World Bank as the “essential ingredient” for achieving sustained poverty reduction.²⁰ However, for every \$100 of global economic growth that occurred between 1990 and 2001, only \$0.60 contributed to reducing poverty below the \$1 per day line. In other words, a \$1 reduction in poverty required a \$166 increase in global production and consumption!²¹ Someone is profiting from economic growth, but it's definitely not the world's poor.

Nor is it the average UK citizen. Over the past thirty years, the gap between the richest and poorest 10 percent of the UK population grew by almost 40 percent.²² The richest tenth of the population now have incomes 14 times higher than the poorest tenth. In the U.S., the income gap is even larger at 16 times.²³ Such gaps are deeply problematic. As Richard Wilkinson and Kate Pickett show in their groundbreaking book, *The Spirit Level*, high income inequality is associated with a multitude of health and social problems, including increased mental illness, more prevalent drug use, poorer physical health, lower life expectancy, inferior educational performance, heightened violence, and higher rates of imprisonment.²⁴

The failures of the growth model are not just limited to quality of life and poverty. They also extend to the goal of achieving full employment. Despite our continual pursuit of rising GDP in the UK, the unemployment rate has bounced up and down over time, ranging from 3.7 percent in 1973 to 11.8 percent in 1984 (Figure 2.9). Unemployment has recently climbed to about 8 percent, and over 1.3 million more job losses are predicted over the next five years as a result of cuts designed to eliminate the country's deficit.²⁵ The UK's growth-based economy has not been able to guarantee full employment, largely because economic growth is an unstable "boom-and-bust" model. Periods of growth are inevitably followed by periods of recession, which are marked by significant job losses.

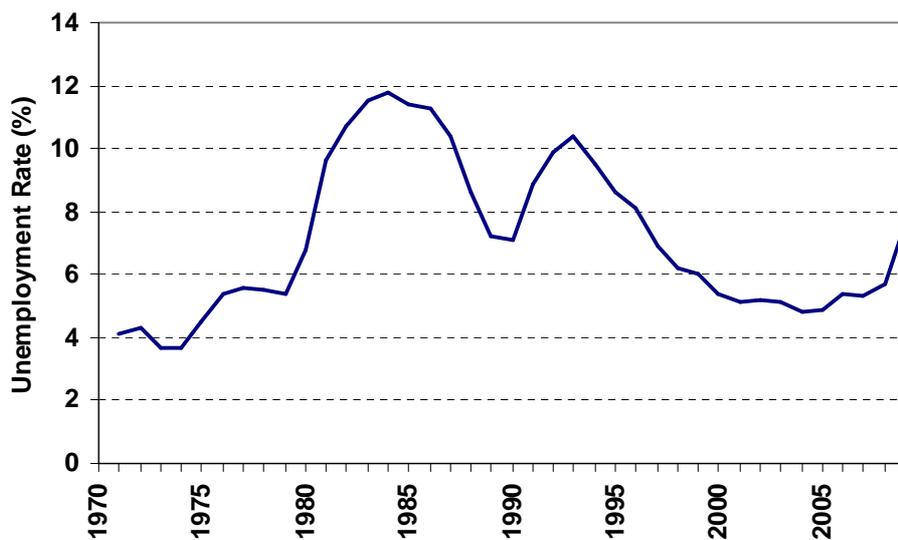


Figure 2.9: Unemployment rate in the UK, 1971–2009.
Source: see note 26.

A policy of endless economic growth is destined to fail environmentally; the economy cannot grow forever on a finite planet. What is more surprising, however, is that growth is also failing on its own terms. It is not providing lasting solutions to the problems of unemployment and poverty, and it is not making people any happier when they already enjoy high levels of consumption. In the unending quest to lead fulfilling lives, consuming past the point of "enough" is an exercise in futility. The evidence suggests that most people already have enough material goods in wealthy

countries like the UK — the challenge is to figure out how to build an economy on something other than ever-increasing consumption.

John Maynard Keynes, arguably the most influential economist of the 20th century, recognised this point. He wrote:

The day is not far off when the economic problem will take the back seat where it belongs, and the arena of the heart and the head will be occupied or reoccupied, by our real problems — the problems of life and of human relations, of creation and behaviour and religion.²⁷

He understood that a society's ability to overcome scarcity — that is, to provision itself sufficiently with goods and services — could open a doorway to a better place. Such a society could address higher needs and turn its attention to cultural and spiritual advancement. It appears that for high-consuming nations such as the UK, that day “not far off” is upon us.

3. What Sort of Economy Provides Enough?

“Working on the new macro-economics of sustainability is a bit like assembling a jigsaw puzzle, but without the benefit of the picture on the box. As researchers we’re trying to fill in the pieces so that we can make out the picture. But as campaigners we’re also trying to communicate to people what we see, because time is running out and the transition needs to get started.”

— Dan O’Neill, CASSE
Keynote Speaker

As the previous chapter has shown, endless economic growth is not possible on a finite planet. And even if it were, it would not be an appropriate goal for wealthy countries like the UK to strive towards because it is no longer increasing well-being. Something different is required, but what exactly?

The answer is connected to the scale of the economy. The UK’s ecological footprint is currently 6.1 hectares per person. This number is almost four times higher than the amount of biologically productive land and water in the UK. It is roughly three times higher than a “fair earthshare”, the area that would be available to each person if the earth’s productive land were divided equally among all people. In other words, if everyone in the world were to consume resources and produce wastes at the same rate as UK citizens, it would take three planet earths to support the world’s population.²⁸ We only have one.

These and other data suggest that the UK economy needs to *degrow* if it is to become ecologically sustainable and if people in poorer countries are to have the ecological space they need to escape poverty. As with growth, however, it is also not possible, nor desirable, for the UK economy to degrow forever. Degrowth is a process of transition and the end goal of this process is a *steady state economy*. The declaration from the first international conference on degrowth, held in Paris in 2008, makes this point:

We define degrowth as a voluntary transition towards a just, participatory, and ecologically sustainable society... The objectives of degrowth are to meet basic human needs and ensure a high quality of life, while reducing the ecological impact of the global economy to a sustainable level, equitably distributed between nations... Once right-sizing has been achieved through the process of degrowth, the aim should be to maintain a “steady state economy” with a relatively stable, mildly fluctuating level of consumption.²⁹

In this report, we focus on the end goal: a steady state economy. We do this for three reasons: (1) it is critically important to establish a working model for the steady

state as this is where the economy must end up, (2) if we can determine how to make a steady state economy work, then the steps required in the degrowth transition will become clearer (it's easier to get someplace if you know where you're going), and (3) the economic policies needed to achieve a steady state economy, and to manage the degrowth transition to one, appear to have much in common.

What Is a Steady State Economy?

The idea of a steady state economy was largely developed by economist Herman Daly in his 1977 book *Steady-State Economics*.³⁰ At its simplest, a steady state economy is an economy that aims to maintain a stable level of resource consumption and a stable population. It is an economy where energy and resource use are kept within ecological limits, and where the goal of maximising GDP is replaced by the goal of maximising quality of life.

A steady state economy would require striking a balance between the stock of natural capital and the stock of built capital, with both of these remaining relatively constant over time. A constant stock of natural capital implies the preservation of wilderness areas, and the maintenance of important services provided by ecosystems, such as climate regulation. A constant stock of built capital implies maintaining and improving the quality of infrastructure like buildings and roads, but not constructing more and more of these over time.

A steady state economy is an economy with *enough* as a goal — it prioritises well-being above consumption, and long-term health above short-term gains. It focuses on innovation and development instead of growth, and it aims for stable throughput of energy and material resources. The pursuit of endless economic growth, with all of its downsides, is clearly unsustainable in the 21st century. A steady state economy is the sustainable alternative to perpetual economic growth.

There are four important characteristics of a steady state economy. The first of these, and arguably the most critical, is *sustainable scale*. The scale of the economy is sustainable so long as the economic sub-system is able to exist indefinitely within the capacity provided by the earth's ecosystems. The economy should grow so long as the benefits of growth (e.g. more income, bigger houses) exceed the costs (e.g. climate change, species extinctions). However, as soon as the costs start to equal the benefits, growth becomes uneconomic. At this point, each additional pound, dollar, or euro of growth actually makes us poorer, not richer.

The second important characteristic of a steady state economy is a *fair distribution* of income and wealth. As Richard Wilkinson and Kate Pickett describe in their book, *The Spirit Level*, there is a strong social argument for reducing inequality in society. High levels of inequality are associated with a variety of health and social problems, including decreased trust, increased mental illness, and higher crime rates.³¹ But there is also a strong environmental argument for reducing the gap between the rich and poor. High levels of inequality lead to unhealthy status competition, and therefore to increased material consumption across society as a whole (as everyone tries to “keep up with the Joneses”).

The third important characteristic is *efficient allocation*. The allocation of scarce resources among competing interests is the focus of much of conventional economics. The dominant thinking is that free and competitive markets, where prices are determined by supply and demand, and consumers have access to good information about products, lead to the efficient allocation of goods and services. There is a strong role for markets in a steady state economy, but it's critically important to recognise where markets work, and where they don't, and deploy the power of markets appropriately. A steady state economy aims to strike the right balance between markets, the state, and civil society. In recent years, this balance has become skewed. We have put far too much faith in markets to solve problems that they are not equipped to solve, and in some cases which they have created.

A steady state economy works towards these first three features (sustainability, fairness, and efficiency) in order to achieve a *high quality of life* for all citizens. Currently, GDP is used as the main measure of economic progress, but as we saw in Chapter 2, increases in GDP are not translating into increases in well-being for citizens of wealthy nations like the UK. A steady state economy would use different indicators of progress to assess whether quality of life was improving. It would shift the focus of measurement away from the production and consumption of goods and services, towards the things that really matter to people, like health, well-being, secure employment, increased leisure time, strong communities, and economic stability. In short, it would transform the goal of the economy from producing more stuff, to enabling people to live better lives.

Can We Really Do This?

The vision of a steady state economy described above is a profoundly positive one. The claim made here is that the transformation of the economic system from growth to stability, from more to enough, would allow us to solve major environmental problems, while at the same time maintaining (or even improving) quality of life. It almost seems too good to be true. Can such an economy really work in practice? Is it possible to have full employment, no poverty, fiscal balance, and reduced environmental impacts without relying on economic growth?

To help answer this question, economist Peter Victor has created a model of the Canadian economy to test what would happen in various low growth scenarios over a thirty-year period (from 2005 to 2035).³² Although a computer model doesn't serve as a substitute for experience in the real world, it can help us to understand what policy changes are required to achieve various economic outcomes.

If the model is run under a "business-as-usual" scenario (i.e. assuming that past trends continue) then economic growth also continues (Figure 3.1). Between 2005 and 2035, GDP per capita roughly doubles, the unemployment rate goes up slightly and then comes down, government debt falls (as a percentage of GDP), and greenhouse gas emissions increase. However, despite the large increase in the size of the economy, poverty (as measured by the UN's Human Poverty Index), also continues to rise, such that there are more Canadians living in poverty at the end of the period than at the beginning.

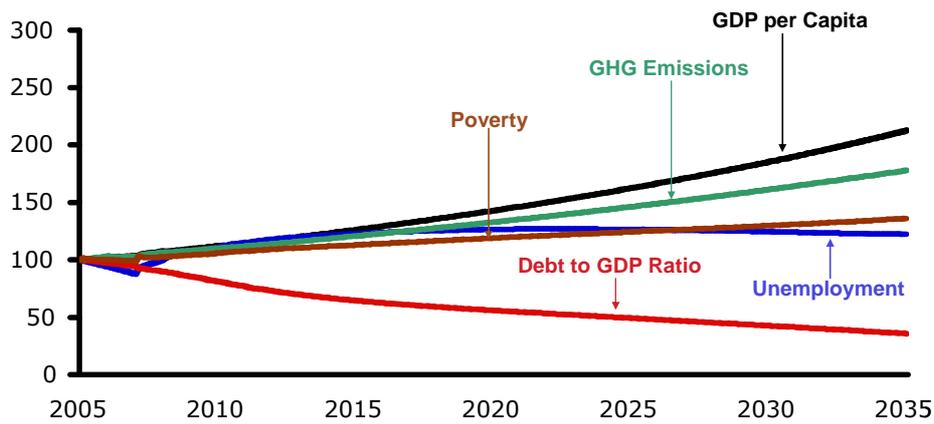


Figure 3.1: A “business-as-usual” scenario. Source: see note 33.

While the business-as-usual scenario is appealing in many ways, it is entirely unrealistic due to the environmental limits that we face (which are not included in the model). Larry Elliot, the economics editor of *The Guardian*, wrote in 2008, “The real issue is whether it is possible to challenge the growth-at-any-cost model and come up with an alternative that is environmentally benign, economically robust, and politically feasible.”³⁴

If increases in all of the sources of economic growth (i.e. consumption expenditure, investment, government expenditure, trade, population, and productivity) are eliminated over a 10-year period beginning in 2010, a very different scenario emerges from the model: a no-growth disaster (Figure 3.2). Poverty skyrockets, unemployment literally climbs off the chart, and the level of government debt becomes completely untenable. GDP per capita and greenhouse gas emissions do eventually level off, but at the cost of economic collapse.

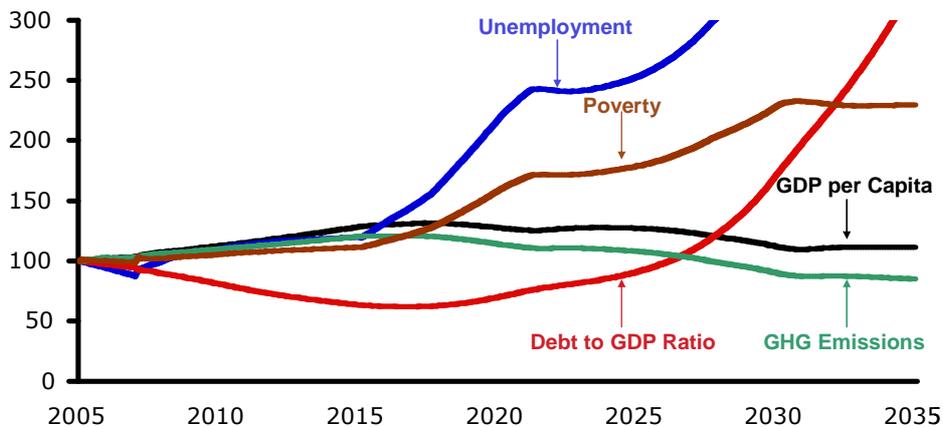
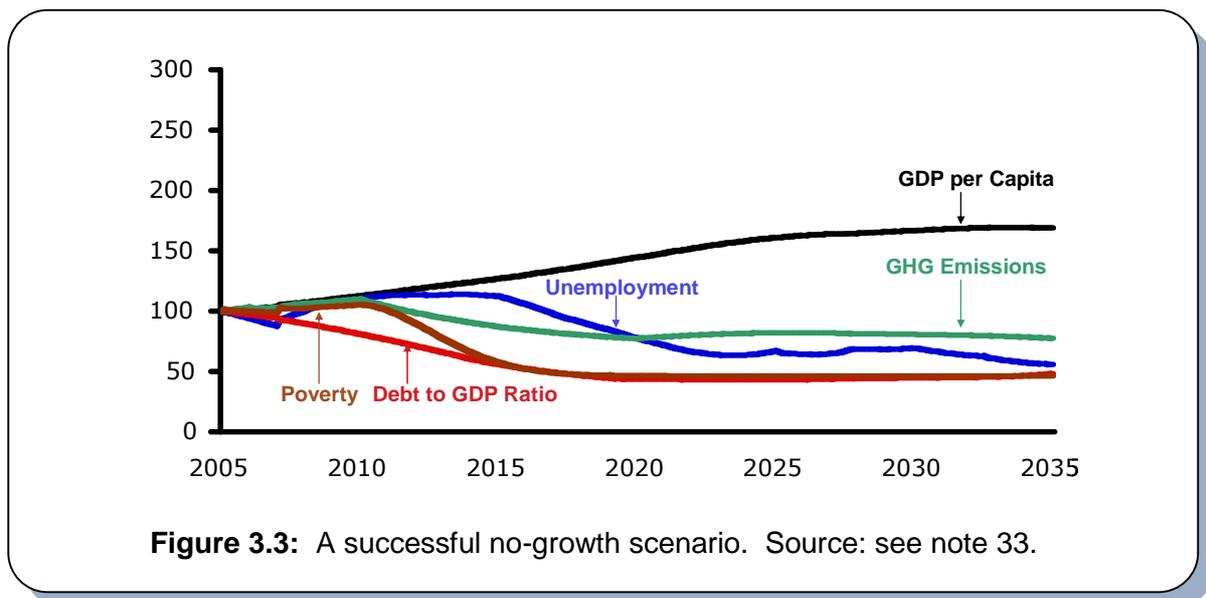


Figure 3.2: A no-growth disaster. Source: see note 31.

The fear of a nightmare scenario such as the one shown in Figure 3.2 is largely what keeps us chasing economic growth. It is why the response to the global recession has been to prop up the existing system and try to get us back to an economy that resembles the business-as-usual scenario.

Fortunately, the model also demonstrates that it is possible to achieve a *no-growth success* (Figure 3.3). If the right policies are phased in over time, unemployment is reduced to historically low levels, leisure time is increased, poverty is virtually eliminated, greenhouse gas emissions are reduced, and government debt is kept at a healthy level — all without the need for economic growth.



Significant changes are required to achieve a successful non-growing economy like the one shown in Figure 3.3. These changes include:

- New meanings and measures of progress;
- Limits on material and energy consumption, waste production, and land use;
- Stable population and labour force;
- More efficient capital stock;
- More durable, repairable products;
- Better pricing (including a carbon price);
- Shorter work year and more leisure;
- Reduced inequality;
- Fewer status goods;
- More informative advertising;
- Better screening of technology;
- More local (and less global) trade of goods and services; and
- Education for life, not just for work.

However, as Tim Jackson, author of *Prosperity Without Growth*,³⁵ described in his keynote address at the conference, the transition to a steady state economy will likely require more than just policy changes. It may also require us to fundamentally

rethink major economic institutions such as investment, productivity, and ownership:³⁶

- **Investment:** In the current economic system, investment essentially means using money to make money. Investment flows to enterprises that generate financial returns, often by increasing labour productivity and chasing consumer novelty. But investment is not about — or should not be about — throwing over the old in favour of the new, simply because it sells. Investment represents a simple relationship between the present and the future. It entails forgoing present-day consumption and using the resources saved to build a better future. A steady state economy would require us to embrace this deeper view of investment. Instead of viewing investment only as a way to generate financial returns, we must also see it as a way to generate social and environmental returns.
- **Productivity:** The current economic system seeks to maximise labour productivity, to produce more output from each hour of work. There is an implicit assumption that increases in productivity are in the best interests of society, but this is not always the case. In a service-based economy, for example, chasing labour productivity makes little sense; it simply leads to job losses. Instead of seeking to maximise productivity, the economic system should work towards optimising it. We should pursue productivity gains to minimise unpleasant work, but not use them to displace work that brings joy and meaning to people's lives. As E.F. Schumacher wrote: "If a man has no chance of obtaining work he is in a desperate position, not simply because he lacks an income but because he lacks this nourishing and enlivening factor of disciplined work which nothing can replace."³⁷
- **Ownership:** Ownership of the means of production has been the subject of fierce debate for generations. The debates have largely regressed to shouting matches about the merits and drawbacks of capitalism. But ownership is not limited to the black-and-white choice between the public and private realm — there are many shades of grey in between. As Tim Jackson noted in his keynote address, "This is not a point in time to get bogged down in ideological debate... Once we let go of our assumptions about the nature of ownership we can think of all kinds of different ownership structures, not just state socialism versus private capitalism."³⁸

Although Peter Victor's model offers hope that a steady state economy is technically achievable, it says little about whether it is politically feasible. Political feasibility is certainly increased by demonstrating that such an economy can work using a computer model. However, there is still a wide gap between a successful computer model and real world implementation, especially considering the institutional changes that may be required.

To help build support for a steady state economy, and thus enhance its political feasibility, CASSE (the Center for the Advancement of the Steady State Economy) has created a position statement on economic growth for endorsement by individuals and organisations.³⁹ This statement recognises the conflict between economic growth and environmental protection, and calls for the transition to a steady state

economy. The purpose of the statement is to demonstrate the growing level of support for a steady state economy, and advance the idea of a sustainable economy in policy discussions.

At the time of writing (November 2010), the position statement had been endorsed by 150 organisations, including professional societies, NGOs, businesses, and political parties.⁴⁰ It had also been endorsed by over 5900 people, including a large number of well-known economists and scientists.⁴¹

The concept of a dynamic economy that does not require growth to improve quality of life, and finds equilibrium with nature, is highly appealing. But there are many questions that must still be answered in order to achieve it. The Steady State Economy Conference investigated ten key areas where change is required to achieve a steady state economy. In the next part of this report we discuss the main proposals that were put forward in these areas. Each of the next ten chapters provides background on a specific problem, a proposal for how it might be solved, and the main elements of the discussion that followed the proposal at the conference. Each discussion section is roughly organised into general issues about the proposal, obstacles to implementation, actions that could make it happen, and questions for future research.

There was not complete consensus on the implementation details for any of the proposals, but there was strong agreement on the high-level actions required. The proposals should not be viewed as the definitive answer for how to achieve a steady state economy, but they provide an excellent starting point for further debate and action.



Part Two
Strategies of Enough

4. Enough Throughput: Limiting Resource Use and Waste Production

“If your house is on fire, you don’t look to put in a new smoke alarm, you call the fire brigade. Unfortunately there is not yet the acceptance that the house is on fire.”

— Workshop Participant

Background

Current approaches to resource management are founded upon economic models that were developed when the world was relatively full of nature and empty of people and their manufactured goods. During that era, the evolution of agriculture, colonial expansion, and the industrial revolution provided seemingly endless frontiers of untapped resources. Coupled with new technologies, expansive economic activity enabled novel, more efficient and faster resource use. The world view that was dominant during this time is captured in the words of the political economist Henry George, who in 1884 wrote:

It is a well-provisioned ship, this on which we sail through space. If the bread and beef above decks seem to grow scarce, we but open a hatch and there is a new supply, of which before we never dreamed. And very great command over the services of others comes to those who as the hatches are opened are permitted to say, “This is mine!”⁴²

The increase in material throughput — the quantity of material resources flowing through the economy — over the last 200 years has vastly increased material well-being, albeit in extremely inequitable ways. This growth dynamic also allowed for rapid increases in human populations, which in turn drove and enabled even greater levels of resource use. During the 20th century world population quadrupled to 6.4 billion people while global material extraction increased by a factor of eight.⁴³ It has been estimated that 36 percent of the earth’s biologically productive surface is “entirely dominated by man”,⁴⁴ and the boundless economic frontiers envisioned by Henry George are no longer fit for purpose.

Although the unprecedented increase in natural resource use during the last century has undoubtedly provided many benefits, it has not been without cost. As the amount of material drawn from the environment into the economy has increased, so has the outflow of wastes, pollution, and emissions back into the environment. The appropriation of materials, energy, and land for human activity has reduced the space available for non-human species, leading to species extinctions and biodiversity loss. High levels of throughput are destabilising the regulatory systems (climate, nutrient cycling, fresh water provision, etc.) on which humanity ultimately depends. The consumption of non-renewable resources (such as fossil fuels), and the overexploitation of renewable resources (such as nutrient flows, forests, and fish

stocks), threaten the continued existence of these vital resources for future generations.

Despite the pressure that the economy is placing on the biosphere, the dominant economic model still calls for continued economic growth driven by increased production and consumption of goods and services. These goods and services in turn are ultimately dependent on drawing ever-increasing resources from the environment and emitting ever-increasing levels of waste back into the environment. As a subsystem of the environment, the economy can only be sustainable if the material throughput remains within the regenerative and absorptive capacities of the environment. A new approach is required that ensures that enough of the earth's resources are retained in natural systems to guarantee the long-term health of the environment. In such an approach, growth in material throughput cannot be used as the means of increasing the material well-being of the world's poor. Instead, we must explicitly manage the limited resources available to humanity to provide enough resources for all people to flourish.

Proposal

Individual natural resources are different in both their nature (e.g. renewable versus non-renewable) and how they are consumed (e.g. private versus public goods). Given these differences, it would not be sensible to apply a single policy prescription to all natural resources. Instead, we propose a set of core principles to guide the creation of resource use and waste management policies. These principles are based on a proposal written by Victoria Johnson for the *Workshop on Limiting Resource Use and Waste Production*,⁴⁵ as well as comments and ideas from participants in this workshop.

The principles may be divided into three areas: (1) setting resource limits, (2) effective monitoring and management, and (3) equitable distribution and resource governance.

Setting Resource Limits

To date, mainstream economics has emphasised efficient allocation of scarce resources by markets. It has not effectively tackled the issue of scale (the physical size of the economy relative to the ecosystem). The lack of scale awareness in mainstream economics suggests that we cannot rely on free markets alone to maintain natural resource use within ecological limits. As one workshop participant noted:

We are back to the old neoliberal agenda of not needing to make decisions. I think that for the scale and the speed of the transformation that's required... we have this unavoidable problem of needing to pick winners in the sense of redirecting investment in the economy.

Policies are required to set physical limits on resource use in order to ensure that the size of the economy remains within ecological limits. These limits should be based on scientific evidence, using Herman Daly's three principles for sustainable resource

use (Box 3.1).⁴⁶ Where uncertainty remains regarding the ecological limits for a particular resource or waste stream, the precautionary principle⁴⁷ should be invoked when defining resource caps.

Box 3.1: Herman Daly's Three Principles for Sustainable Resource Use

1. Limit the use of all resources to rates that ultimately result in levels of waste that can be absorbed by the ecosystem.
2. Exploit renewable resources at rates that do not exceed the ability of the ecosystem to regenerate the resources.
3. Deplete non-renewable resources at rates that, as far as possible, do not exceed the rate of development of renewable substitutes.

Limits on resource use and waste production need to be imposed incrementally over time. An incremental approach allows space for the orderly structural changes to economies and behaviours that are required to break currently “locked-in” consumption patterns (such as dependence on fossil fuels). Phased-in resource limits also reduce policy implementation costs and the burden imposed on the poorest and most disenfranchised members of society.

Resource limits should ideally be set from the top down, starting at the global level and filtering through international regions, nations, and local communities. But the power to manage limited resources should reside within, and be driven by, individuals and grassroots organisations from the bottom up. Any resource-limiting policy or policy tools must, therefore, explicitly engage and empower individuals and communities in the management of scarce resources. Such engagement and empowerment is necessary for both moral and practical reasons. As one workshop participant stated: “We are not going to get there without policy frameworks, but you are not going to get policy frameworks without a buy-in from the ground up.”

Effective Monitoring and Management

The starting point for monitoring material throughput is to adopt some form of national green accounting, such as the United Nations Integrated Environmental and Economic Accounting system (SEEA 2003).⁴⁸ SEEA 2003 provides a common framework for economic and environmental information. This framework allows for consistent analysis of the contribution of the environment to the economy, and the impact of the economy on the environment. The framework comprises four categories of accounts:

1. *Flow accounts for pollution, energy, and materials*: These accounts provide information at the industry level about the use of energy and materials as inputs to production, and the generation of wastes from production processes.

2. *Environmental protection and resource management expenditure accounts:* These accounts identify expenditures incurred by industry, government, and households to protect the environment or manage natural resources.
3. *Natural resource asset accounts:* These accounts record stocks (and changes in stocks) of natural resources, such as land, fish, forests, water, and minerals.
4. *Valuation of non-market flow and environmentally adjusted aggregates:* These accounts calculate stock depletion (for non-renewable resources), defensive expenditures (the cost of remediating harm caused by economic activities), and the decline in wealth resulting from environmental degradation.

Given that different uses of the same resource can have different environmental and socio-economic impacts, the monitoring system must measure not only the material throughput of the economy, but also the social and environmental impacts of that throughput. In other words, the monitoring system must be comprehensive. This implies that (a) the system must examine the *direct* impacts of reductions in the consumption of a given resource (e.g. forest products) or waste stream (e.g. CO₂), and (b) the system must keep track of the *indirect* impacts caused by changing behaviour in response to resource limits.

To see why a comprehensive monitoring system is important, consider fossil fuels: a limit on fossil fuel production could result in a significant increase in bio-fuels (through resource substitution), which could have unintended consequences on land use and food prices. These indirect impacts should be considered and monitored along with the direct impacts of burning less fossil fuel. Both the indicators and the enforcement mechanisms for ensuring sustainable material throughput must be dynamic and flexible, so that resource limits can be adjusted when new information becomes available, or unintended consequences of limits become evident.

National green accounting of material throughput and its impacts is important as a tool for policy makers in the management of scarce resources. However, to achieve grassroots engagement, there is an equal need for indicators of resource use that can increase citizens' understanding of ecological issues and empower them to make wise decisions about resource use. Workshop participants did not discuss these "citizen level" indicators in detail, but several participants called for better labelling on consumer products, and increased education about the environmental and social impacts of consumer goods and services.

Equitable Distribution and Resource Governance

In theory, markets generate the most efficient allocation of scarce resources among competing uses. In this context, efficient allocation means generating the greatest value from a given resource. Market transactions do not necessarily lead to an equitable distribution of the value that is generated. Therefore, policies that limit resource use must explicitly address how the value embodied in limited natural resources can be fairly distributed among all citizens.

It would not be desirable to maintain the current distribution of natural resources (and the goods and services that flow from them) in a scenario of limited resource use.

The wealthy would increasingly capture a greater proportion of the fixed supply of resources, with detrimental effects on the poor. Setting resource limits is a key opportunity to provide fairer distributions of wealth while also tackling aggregate resource use. Moreover, policies deemed to be more equitable are more likely to receive support at the national and international level. Policies, therefore, need to be aligned with the following four rights, each a cornerstone of environmental justice:

1. The right to a healthy and safe environment and the responsibility to maintain it;
2. The right to a fair share of natural resources;
3. The right to be able to access environmental information and participate in decision-making; and
4. The right not to suffer disproportionately from environmental problems or the effects of environmental policy or law.

Considerable cultural and structural changes will be required across society in order to set absolute limits on resource use. Any policies that set resource limits must acknowledge the need for these changes and the difficulty in making them. Interventions that maximise environmental, economic, and social benefits will be the most effective way to reduce both risk and vulnerability in the context of a resource-limited world. Such interventions should actively engage organisations, individuals, and communities to make informed decisions on their own resource use. Where possible, alternatives to current resource-intensive activities should be made available before limits are imposed.

Discussion

Workshop participants strongly agreed about the need to set fixed limits on natural resource use and waste production, monitor material throughput (and its environmental and social impacts), and move towards a more equitable distribution of the earth's limited natural resources. Several policy tools for reducing material throughput were discussed, including outright bans, ecological taxation, individual rationing, cap and trade, and cap and share schemes (Box 3.2). The general feeling was that, within the policy framework outlined above, cap and share schemes were likely to be the most effective policy tool for many natural resources.

By redesignating property rights, cap and share schemes provide direct and explicit redistribution of resources (Figure 4.1). Each individual in the scheme effectively owns a share of the given resource and receives payment from the sale of permits to producers wishing to generate value from the resource. This shared income compensates individuals for the increased prices that result from limiting the supply of the resource. Individuals who consume less than their fair share of the resource (in the form of goods and services generated from the original resource) are financially rewarded for their virtuous behaviour. Although cap and share schemes have many benefits, they would still need to be accompanied by "citizen level" indicators and public education if they are to generate increased understanding of material throughput and the sustainable consumption of natural resources.

Box 3.2: Some Policy Tools for Limiting Throughput

- *An outright ban* is the simplest tool. It makes it illegal to use a specific material or a particular process in the economy.
- *Ecological taxation* shifts the burden of taxes onto those items and activities society wants to discourage or limit, such as pollution and vehicle miles travelled.
- *Individual rationing* provides each person or company (or some other type of participant in the economy) with a certain amount of a resource to use. For example, each person could be designated a certain number of kilowatt-hours of electricity to use.
- *Cap and trade* policies set an overall cap on the use of a resource, divide the cap into permits that are distributed (or potentially auctioned) to industries, and allow permit holders to trade their shares on an open market.
- *Cap and share* schemes set an overall cap on the use of a resource and divide the cap into equal permits that are distributed to all citizens. Citizens may then sell these permits to industries, who must purchase them in order to use the resource.



Figure 4.1: Example of a cap and share scheme for CO₂ management. Source: see note 49.

Other general issues discussed in the workshop include:

- **Caps versus taxes:** With cap schemes, the quantity of resource use is set by the government, and the price of resource use is established by the market. With ecological taxes, the price of resource use is set by government (through taxation), and the quantity used is determined by the market, based on how willing industries are to pay this price. The advantage of cap schemes is that they provide relatively certain outcomes in terms of material throughput, due to enforcement of caps on resource extraction or waste emissions. A potential disadvantage of cap schemes, however, is the possibility of generating uncertain resource prices and unexpected consumer behaviour compared to tax-based policies.
- **State sovereignty:** Control of resource extraction and consumption primarily resides at the state level, but the impacts from using resources are often experienced globally. For example, resources such as oil wells and forests fall under the jurisdiction of national governments, but the management of these resources affects global common goods such as the climate and biodiversity. It remains unclear how limits should be set in this context.
- **Global relationships:** If throughput limits are created in a country such as the UK, there is a real risk that capital and industry would flee to other countries that have not imposed such limits. A nation trying to enact a “sensible” resource use policy may face difficulties with other nations that continue to pursue growth-based policies. (See Chapter 11 for a discussion of global issues.)
- **Defining equitable:** Although a more equitable distribution of resources is one of the goals of a steady state economy, questions remain about how equity should be defined and who should assess it. On the one hand, resource distribution could occur at the national level, with individual countries responsible for the distribution of resources to their citizens. On the other hand, resources could be distributed based on a global per capita share, with all people receiving the same entitlement. Even this latter option might not be truly equitable, however, given that some environments probably require more resources than others to maintain the same level of well-being (e.g. energy needs might be higher where large amounts of infrastructure must be maintained, or where there is currently insufficient infrastructure to maintain well-being).
- **Measurement:** There is still uncertainty about whether we can accurately measure ecological limits. Although relatively good data are now available on the material and energy throughput of national economies, it is much more difficult to assess the environmental and social impact of this throughput.
- **Coordination with other policies:** Policies to limit natural resource use cannot work in isolation. They need to be part of a wider, coherent policy framework that enables livelihoods to be sustained in a non-growing economy. In particular, policies on wealth distribution and behavioural change (in relation to consumption) need to be enacted in parallel to those on limiting resource use. Policies and approaches to address these issues are discussed in Chapters 6 and 12, respectively.

Conclusion

To establish an economy that thrives within ecological capacity, it will be necessary to limit resource use and waste production. Resource-limiting policies should employ caps based on the best scientific evidence available on ecological limits, and apply the precautionary principle where uncertainty remains. Limits should be introduced slowly over time, and imposed from the top down. However, management of resources should reside with, and be driven by, individuals and grassroots organisations from the bottom up.

Setting resource limits represents a key opportunity to achieve a fairer distribution of wealth, and to this end, resource policies should be aligned with the principles of environmental justice. A detailed measurement system will be required to measure not only the material throughput of the economy, but also the social and environmental impacts of that throughput. Although many questions remain about how to limit throughput equitably, “cap and share” schemes may provide the starting point for an economy that cares for people and the planet.

Questions for Further Research

- How can caps be determined when resources (such as oil wells and forests) are in the hands of sovereign nations, but the impacts of using these resources are experienced globally?
- Should we concentrate on policies that are most likely to meet the stated goal (sustainable material throughput), even if these policies are unlikely to be enacted in the current political environment? Alternatively, should we consider what is achievable in the current policy environment and base policy on this consideration, even if it does not achieve the stated policy goal?
- How should “equitable” be defined, given sovereignty issues, and the fact that some environments require more resources than others to maintain similar levels of well-being?

5. Enough People: Stabilising Population

“I've never seen a problem that wouldn't be easier to solve with fewer people. The same problem becomes harder, or ultimately impossible, when more people are involved.”

— Sir David Attenborough

“Humanity has been clever enough to use the bounty of natural capital, stored up over four billion years, to support our phenomenal population growth, but we've been stupid enough to treat that bounty as income rather than capital.”

— Roger Martin, Optimum Population Trust
Workshop Speaker

Background

The issue of population growth, and its relationship to environmental sustainability, invites controversy. It is tied to divisive topics such as poverty, reproductive health, women's rights, immigration, and cultural and religious beliefs. Neither people on the left of the political spectrum, nor those on the right, want to tackle the issue. Some fear that focusing attention on population detracts from what they view as more pertinent social justice issues such as redistributing wealth from the rich to the poor.^{50, 51} Others fear that discouraging population growth will encourage abortion, or that halting population growth will cause economic hardships.^{52, 53} Still others see addressing population growth as an attack on human rights (e.g. the free movement of people or the right to choose reproductive outcomes).⁵⁴ Population growth lives, politically speaking, in a limbo.

But it's an issue that we must address. The total resource use of a country will increase when either the number of people living in the country increases, or the amount that each of these people consumes increases. To achieve a steady state economy, it is therefore necessary to stabilise not just per capita resource use, but also population numbers.

The “I-PAT equation” demonstrates the need to stabilise population.⁵⁵ It states that:

$$I = P \times A \times T$$

where *I* is a measure of total impact on the environment, *P* stands for population size, *A* represents affluence (calculated as income per person), and *T* is a representation of the effect of technology (calculated as the environmental impact per unit of income).

To prevent *I* from growing too large and undermining life-support systems (e.g. by destabilising climate or depleting biodiversity), societies must manage the values of *P*, *A*, and *T*. Frugality and sufficiency have the capability to constrain *A*, and environmentally benign behaviour and technological progress have the capability to constrain *T*, but there are limits to these capabilities.^{56, 57} Stabilisation of *P* is therefore necessary as well in order to construct an economy in balance with nature.⁵⁸

Such a balance will not be achievable if current population growth trends continue. Global population is currently over 6.8 billion people, and is increasing by 79 million people every year. In its “medium” population projection, the United Nations estimates that global population will reach 9.2 billion by the year 2050 (Figure 5.1).⁵⁹ Although sometimes construed as a North versus South issue, overpopulation is an issue that affects a diverse range of nations. As Figure 5.2 shows, some of the most densely populated countries in the world are in the global North. The UK, for example, is the 18th most densely populated country in the world, while England (if counted on its own) would rank sixth at 383 people per square kilometre — just behind the Netherlands.⁶⁰

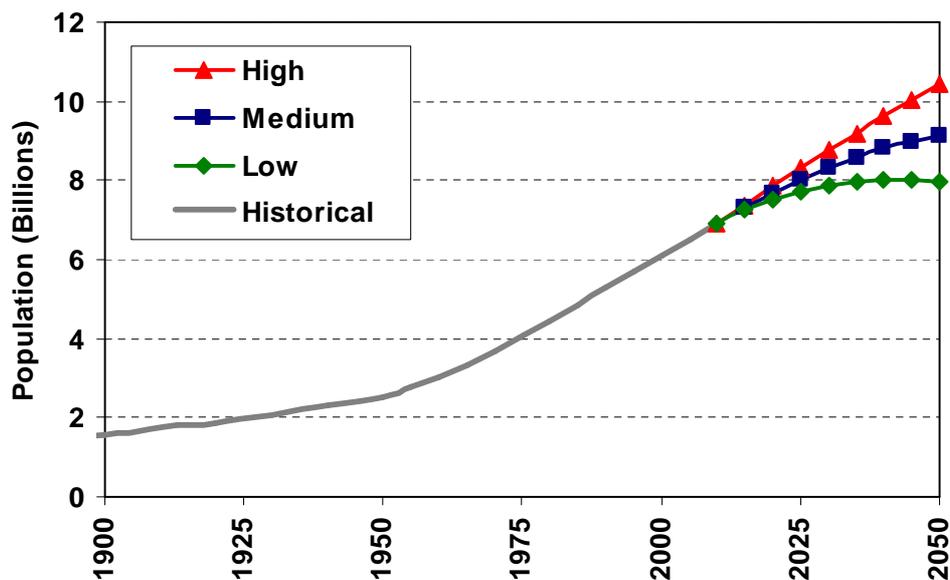


Figure 5.1: World population growth past and future. Data from 1900 to 2010 are historical, while data from 2010 to 2050 show the UN’s three population growth projections (high, medium, and low). Sources: see notes 6 and 59.

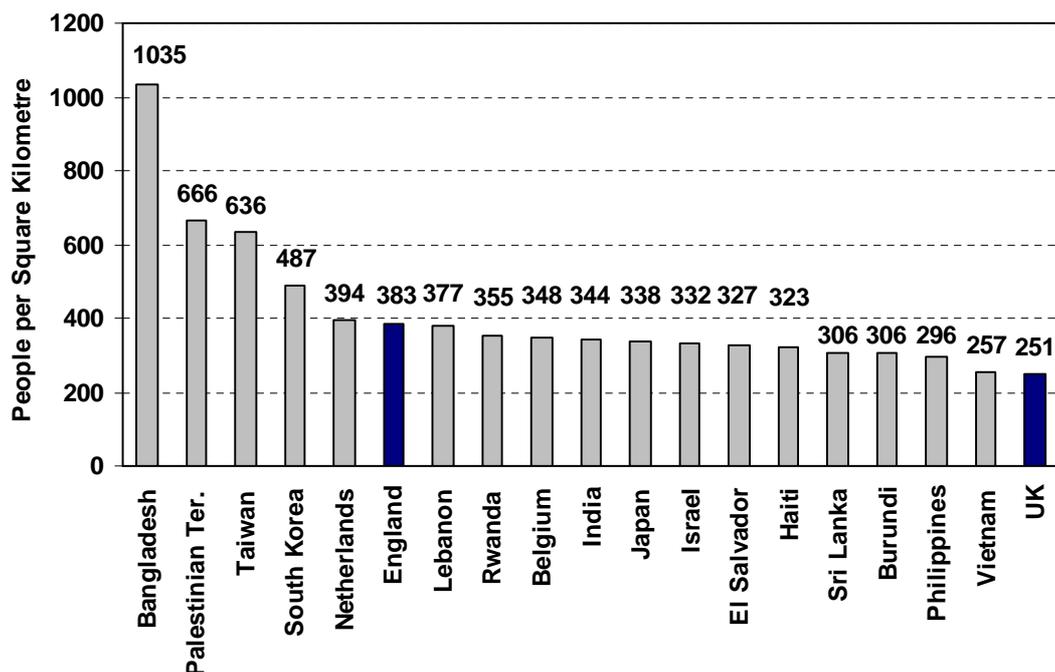


Figure 5.2: The world's most densely populated nations in 2007, excluding small city and island states. Source: see note 60.

As we discussed in Chapter 3, the UK's ecological footprint is already too large — almost four times larger than the amount of biologically productive land within the country.⁶¹ And yet the UK population is projected to rise from its current value of 61 million, to 70 million in 2029, and 77 million in 2050.⁶² Growth at this rate means the UK will accrue enough people to fill ten new cities the size of Birmingham in the next 22 years.

And yet there are reasons to be hopeful that population could be stabilised both within the UK and globally simply by pursuing policies to provide education, access to birth control, and equal rights for women. It is estimated that 40 percent of births in the UK and internationally are the result of unintended pregnancies.^{63, 64, 65} There are roughly 80 million unplanned pregnancies each year worldwide — a number that is almost equal to annual global population growth.⁶⁶ In other words, if access to family planning could be provided to all women in the world, it would go a long way towards stabilising global population.

Population stabilisation is not just an environmental issue; it's also a social justice issue. The more people there are in the world, the smaller the share of natural resources available to each. If the planet's resources were divided equally among all people, it's questionable whether there would be sufficient resources to provide a happy life for all in a world of 9.2 billion people. Even if the situation could be sustained, it would be far from optimal (Box 4.1). If poverty is to be alleviated then citizens in wealthy nations must consume less, and population levels in all countries must be stabilised or reduced. We need smaller footprints, but we also need fewer feet.

Box 4.1: Optimum versus Maximum Population

An optimal population is of such a size that it offers the best sustainable quality of life for all people — one in which there are enough resources to go around. It also allows for sustainable populations of other species. Such a population is much smaller than the maximum possible population. The maximum population is one in which inhabitants are only able to achieve bare survival due to resource limitations.

Proposal

There are four basic types of action that government can take to stabilise population: (1) regulate, (2) tax, (3) spend, and (4) encourage. Direct governmental regulation of population is too heavy-handed (any attempt to stabilise population must be non-coercive), so the menu of policy options must be drawn from the other three types of action.

Roger Martin, Chairman of the Optimum Population Trust, provided a positive and multi-faceted proposal for the UK in the *Workshop on Stabilising Population*. The proposal consists of the following components:

- Develop, adopt and implement a non-coercive UK population stabilisation policy;
- Add population issues to the job description of an inter-departmental Minister with a small co-ordinating unit, to assess the effects of population growth across departments and recommend a range of stabilisation measures;
- Develop, adopt and implement a balanced migration policy that results in equal levels of immigration and emigration;
- Seek a shift in cultural beliefs whereby decisions about family size take account of social responsibilities, including the interests of future generations, as well as individual reproductive rights; and
- Promote incentives that limit family size to two children or fewer.

Discussion

Workshop participants supported Roger Martin's proposal, but they recognised that implementation of the ideas presents prickly problems. Discussion centred on the taboo that permeates the topic of population stabilisation and strategies to overcome it, as well as a number of obstacles to implementing these strategies.

Outside of the workshop, in a broader conference session, several participants expressed reservations about focusing too much attention on population. They noted that population sizes are stabilising around the world, and the majority of environmental impact (especially from CO₂ emissions) originates from high-consuming nations that have low birth rates. They also communicated concerns that population activism could be interpreted as a hypocritical attack by the wealthy on the poor.

Within the workshop itself, the following issues were discussed:

- **Paradox of population stabilisation:** According to a 2009 UK nationwide poll, 70 percent of people are aware that increasing population causes serious environmental problems. In addition, 51 percent want a smaller population in the UK, and only 8 percent favour further population growth.⁶⁷ Given this degree of public support, it is something of a paradox that population stabilisation has gained only a paltry political foothold. People may recognise population size as a serious societal issue, but they seem mostly unwilling to take personal actions or enter into public discussions about it.
- **Difficulty of adopting and adjusting tax/incentive policies:** In the climate of cutbacks and governmental down-sizing (including dissolution of the UK Sustainable Development Commission and Royal Commission on Environmental Pollution), it will be difficult to establish a governmental body to address population. Even in the absence of such a body, getting the policy right is complicated. It is challenging to design incentives or taxes that encourage parents to have fewer than two children. Such policies can inadvertently harm children if they take away resources that would have been available to the children. The key is to maintain support for children's health and welfare, while removing financial incentives for families to have more than two children.
- **Lessons from other places:** Coercive policies (e.g. China's one-child policy and sterilisation policies from Sanjay Gandhi's administration in India) angered many people both within the nations subject to these policies and in the global community as a whole.⁶⁸ Many nations, however, have developed non-coercive population stabilisation programmes that could provide valuable lessons. Examples of such programmes include (1) supplying training, nurses, and clinics for family planning, and (2) requiring couples to take a relationships and family planning class prior to being eligible to obtain a marriage certificate.
- **Role of education and culture:** Moral arguments about family size, limited resources and overpopulation don't seem to be effective, probably because most people don't feel the ecological consequences of overpopulation directly (although some people are aware of the additional costs of having many children). Education can serve as a way to influence choices about family size, and it can help to change the culture to recognise procreation as a responsibility. Education about sex and family planning in schools has been underwhelming in the UK for years, especially compared to other European countries. Teenage pregnancies in the UK are the highest in Europe.⁶⁹ The Netherlands, which has the lowest teenage pregnancy rate in Europe, has a culture much more open to discussing sexuality.
- **Impact of immigration:** Most immigrants to the UK arrive from nations where per capita resource use and pollution are lower, a situation that leads to a higher net ecological impact when they arrive in the UK (and which also highlights the need to decrease per capita impacts in the UK). Women who immigrate to the UK tend to have more children than women born within the country, such that 24 percent of all babies born in England and Wales have mothers who were born

abroad.⁷⁰ A sound population policy in the UK, therefore, requires a balanced migration policy.

The foremost obstacle standing in the way of implementing the proposed policies to stabilise population is the taboo on discussing population. The taboo seemed to arrive in the UK in the late 1970s and 1980s. “Stop at two”, an idea about limiting the number of children in a family to two, was a popular idea at that time,⁷¹ but it has since faded. The taboo on population is supported by a mixture of institutions, from the Catholic Church to feminist organisations, from the liberal left to the religious right. Some interpret discussions of population as harangues against immigration. And some take this interpretation further, claiming that “post-reproductive wealthy white men” attack population growth while they go on destroying the planet through over-the-top consumption.⁷²

In addition to the taboo, there are a number of other hurdles that need to be cleared to achieve sound population policies:

- Financial incentives to encourage population growth exist in many countries (such as Italy and Japan);
- People, especially politicians and younger people, do not want to be associated with population issues due to the controversies they attract and the perceived conflict between population stabilisation and protection of human rights;
- Many lobby groups and corporations support population growth for self-serving reasons (e.g. to gain access to cheap labour);
- Many politicians and citizens fear that a stable or smaller population may lead to national security risks, and a situation in which other nations can outcompete them culturally and religiously; and
- Long-acting, reversible contraception methods for both sexes, but particularly for men, are not widely available. Men have no viable options between a one-use condom and a permanent vasectomy.

Specific, concrete actions to implement a population stabilisation policy include the following:

- Find the roots of the population taboo and address them directly;
- Challenge specific nongovernmental organisations, such as the World Wildlife Fund and Oxfam, to become more involved in population issues;
- Communicate directly with members of Parliament and governmental ministers to help them gain a proper appreciation of the consequences of overpopulation and the availability of sound population policies;
- Establish educational programmes that:
 - address unsubstantiated fears about population stabilisation,
 - promote smaller family size,
 - provide students with information about sex, reproductive health and family planning, and
 - clarify the social and environmental consequences of high population.

Conclusion

The transition to a steady state economy requires a cessation of population growth, and indeed even a contraction in population within the UK and many other nations of the world. The first step toward achieving a sustainable population is to overcome the population taboo and re-open the public discourse on optimal size. People need to engage in an honest discussion that questions both overconsumption *and* overpopulation. The hope is that this discussion, in turn, will lead to the development of compassionate and proactive population policies that don't rely on top-down regulation — policies that stabilise population and ensure enough resources are available for everyone.

Questions for Future Research

- When and why did the taboo on population stabilisation appear and how can it be overcome? Why does there appear to be a generation gap, such that younger researchers avoid population issues?
- How can the effects of overpopulation (a macro-scale issue) be made relevant to individuals, families, and communities (micro-scale institutions) where decisions about procreation are made?
- What are the best taxation and incentive policies to encourage smaller families, and how can they be implemented without penalising children or producing other perverse consequences? What lessons can be learned from the dozens of countries that have adopted non-coercive population policies?
- How can reluctant attitudes towards sex education be overcome so that schools and other organisations can deliver needed educational programmes?

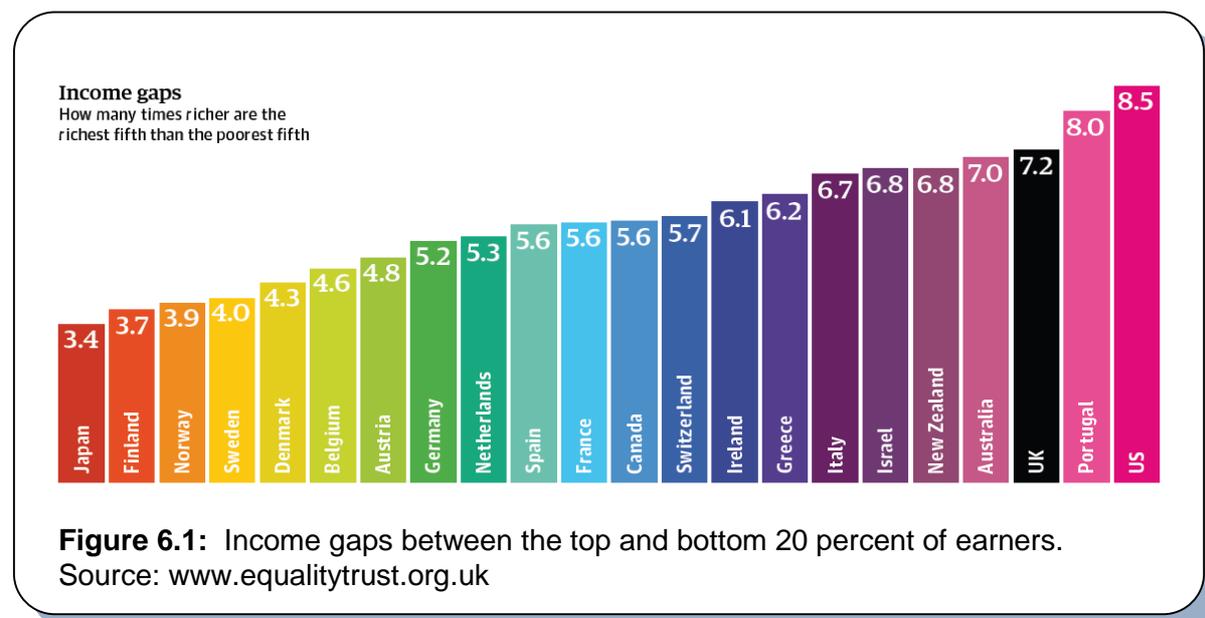
6. Enough Inequality: Distributing Income and Wealth

“We are absolutely desperate for our politicians to articulate a vision of a different society — one that improves the quality of life for us all, one that doesn’t strive for silly goals, one that values the benefits of greater equality.”

— Kate Pickett, University of York
Workshop Speaker

Background

Economic growth is commonly given as an excuse to avoid dealing with poverty and inequality. The conventional wisdom is that “a rising tide lifts all boats”, but this trickle-down approach has not worked in the UK. Over the past thirty years, the gap between the richest and poorest 10 percent of the UK population grew by almost 40 percent.⁷³ The richest fifth of the UK population now earns 7.2 times as much as the poorest fifth, one of the highest levels of inequality in high-income nations (Figure 6.1). It appears that the rising tide is lifting the yachts and swamping the rowboats. In a steady state economy, a stable level of resource use would lead to a non-growing stream of total income. A steady state economy that alleviates poverty and provides equality, therefore, requires fair distribution of this non-growing income stream.



Henry Wallich (1914–1988), a noted American economist and central banker, said, “Growth is a substitute for equality of income. So long as there is growth there is hope, and that makes large income differentials tolerable.”⁷⁴ Wallich’s sentiment

may be true, but the reverse relationship is also true. Greater equality of income is a substitute for growth, and it is a desirable one. In a world struggling with the negative consequences of growth, greater equality can become a cornerstone of a sustainable economy.

The good news is that the benefits of a more equitable distribution of wealth and income are well documented. As Richard Wilkinson and Kate Pickett show in their book, *The Spirit Level*, more equal societies perform better on a variety of health and social measures.⁷⁵ The list of positive outcomes that accrue to more egalitarian societies is remarkable:

- People enjoy better health and a higher life expectancy;
- Fewer citizens have drug problems;
- People are less victimised by violence;
- Teenage birth rates are lower;
- Children experience higher levels of well-being;
- The rate of obesity is lower;
- Mental illness is less common;
- Many fewer people are imprisoned; and
- Opportunities for social mobility are more widespread.

On the flip side, more unequal societies have a powerful tendency to become socially dysfunctional. Examination of the effects of inequality, both among high-consuming countries and among the fifty states of the U.S., uncovers the correlation between too much inequality and the signs of “broken societies” (Figure 6.2). When presenting these data at the conference, Kate Pickett remarked, “This doesn’t look like social science, does it? It looks like physics with a bit of measurement error. We almost never see such a close correlation between a social determinant and an outcome as we see here.”

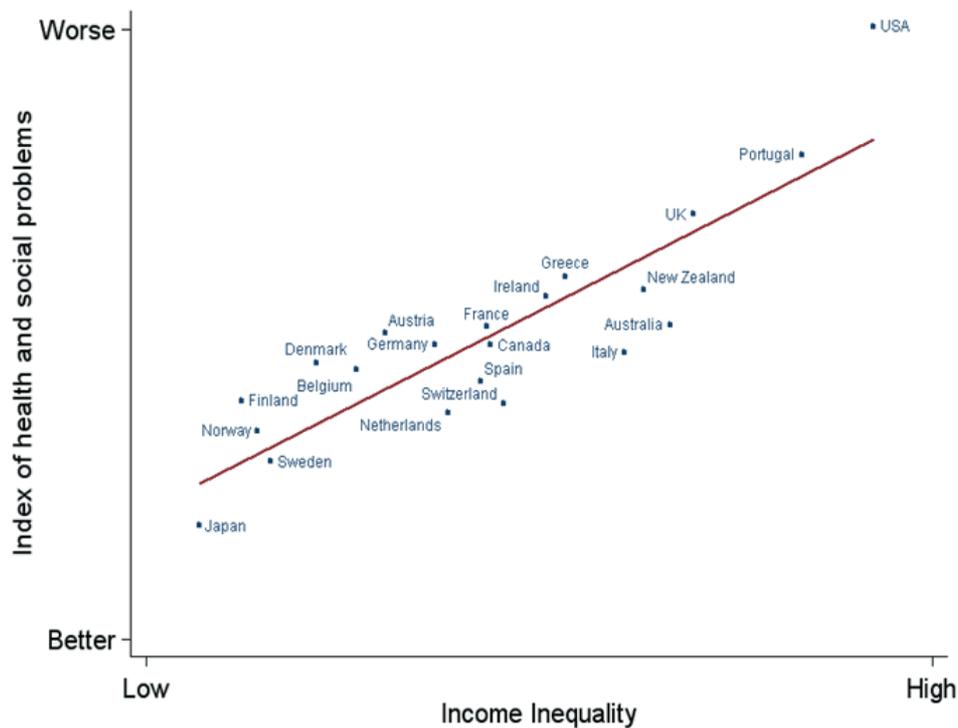


Figure 6.2: Nations with greater inequality have more health and social problems. Source: www.equalitytrust.org.uk

In addition, there is a perceptible loss of cohesion in more unequal societies that results in weaker communities, widespread mistrust, and a host of related problems. High levels of inequality also lead to unhealthy status competition, and therefore to higher levels of material consumption than are necessary to meet people's needs, with negative consequences for the environment.⁷⁶

The benefits of equality are not confined to the poor — they are distributed across all members of society. The vast majority of the population, including wealthier people, do better in more equal societies. Well educated people with high incomes are likely to live longer and be more involved in community life, and their children are more likely to flourish.

A common and unfounded argument in favour of inequality is that inequality drives innovation. But do societies really need inequality to foster creativity and innovation? In truth, more equal societies have a significantly higher level of innovation, potentially because they are more nurturing of human capital (Figure 6.3).



Figure 6.3: More equal societies tend to be more innovative (as measured by patents per capita). Source: www.equalitytrust.org.uk

Statistics on health, happiness, and the ability to innovate reveal that high-consuming countries can improve their living conditions by focusing on equality rather than economic growth.⁷⁷ Improvements in quality of life depend more on the quality of social relations in society than on higher levels of consumption.⁷⁸ Narrowing income differences provides a golden opportunity to enhance social relations. By changing the nature of status competition, more equal societies can suppress unnecessary and conspicuous consumption and improve social and psychological well-being. In short, an economy that features greater equality will have healthier, happier, and more creative citizens, as well as a less degraded environment in which to operate.

Proposal

There are two approaches that could be used to reduce inequality in society. The first is to use taxes and social programmes to redistribute income from the rich to the poor. Sweden and the U.S. state of Vermont are good examples of societies that achieve low inequality in this way. The second approach is to encourage a smaller gap between the wages of high and low earners to begin with, so that redistribution is not necessary. Japan and the state of New Hampshire achieve low inequality without large taxes and redistribution by having a smaller wage gap. Regardless of how a society goes about achieving equality, changes can happen quickly. At the end of World War II, Japan had a relatively inequitable distribution of wealth, and the U.S. was relatively equitable. The two nations have since changed positions.⁷⁹

Although societies can gain the benefits of equality in different ways, there are advantages to using one strategy over another. Following the Sweden/Vermont model may be risky, because a new government can easily overturn the taxes and social policies that produce equality. The Japan/New Hampshire model is less risky because it internalises ideas about economic democracy and narrow income differentials from the outset.

Kate Pickett's overarching proposal in the *Workshop on Distributing Income and Wealth*, therefore, is to develop and promote all forms of economic democracy. Although progressive taxation and generous social programmes may be desirable, efforts to achieve equality should focus on democratising the institutions where inequalities originate (i.e. the organisations where we work and the organisations from which we consume goods and services). People who are affected by the institutions that make up our economy (e.g. companies, government agencies, and non-profit organisations) should, therefore, be given increasing influence over the management of these institutions. Policies that promote employee ownership, co-operatives, and other models of democratic ownership are critical to reducing inequality. Such models allow people to determine wages and salary differentials for themselves and take a big step toward establishing a steady state democracy.

Discussion

Workshop participants expressed support for the proposal. They universally backed the notion that workers and consumers should demand greater equality within the institutions they frequent. Much of the discussion focused on two related issues:

- (1) Strategies to democratise economic institutions, and
- (2) Other approaches, besides democratisation, to reduce inequality.

Strategies to democratise economic institutions include:

- **Establish more employee-owned companies:** In such companies, shareholders are employees, and profits are reinvested into activities that the employees consider to be valuable. There is less of a tendency to undertake speculative or needlessly risky actions in pursuit of profit. Such companies must have full transparency to induce and enhance participation. Scale is not a barrier to employee ownership; large companies, like the John Lewis Partnership, can be owned by employees.
- **Transform more enterprises into co-operatives:** A co-operative is a member-owned and governed organisation that exists to serve its members and share its profits. The UK has much experience with co-operatives in a variety of economic sectors.⁸⁰
- **Expand fair trade:** The UK can be more supportive of the fair trade movement and provide greater opportunities to consume fairly traded goods and services.
- **Increase shareholder participation:** Shareholders can exercise power within companies by voting on issues such as who sits on remuneration committees — a powerful position for developing equality of pay.

- **Improve gender balance:** Having more women in positions of power within economic institutions could help drive income equality. Training is necessary to re-examine the cultural climate of corporations and dismantle social hierarchies that inhibit equality.

Although workshop participants supported the idea of democratising economic institutions, they also suggested a number of other approaches to reduce inequality. These include:

- **Maintain a citizen's income to get a head start on equality, provide essential security, and cover basic needs:** A citizen's income is an unconditional, automatic payment to each individual as a right of citizenship.⁸¹ *The Marmot Review* notes that insufficient income is associated with diminished prospects for long-term health and life expectancy. It posits a minimum income for healthy living that can provide for needs related to nutrition, physical activity, housing, social interaction, transportation, medical care, and hygiene.⁸² As a universal benefit, the citizen's income would replace other direct benefits provided by the state.
- **Set maximum pay differentials:** Some organisations have successfully instituted pay scale ratios, such that the highest paid employee can earn only a certain percentage more than the lowest paid employee. For example, the Mondragon co-operatives in Spain have a range of pay differentials from 3:1 to 9:1 (with an average of 5:1).⁸³ Other co-operatives in the UK have established similar ratios. A 20:1 ratio has been proposed for public sector employees.⁸⁴
- **Establish progressive taxation schemes:** At the household level, income is one of the best indicators of carbon dioxide emissions. Carbon taxes might provide a good solution for managing inequality by redistributing income.

There are many potential ways to implement the strategies described above. On the simple end of the spectrum, citizens can start having discussions. Individuals can initiate conversations about income differentials and engage as many people as possible to eliminate the taboo nature of this topic. Lessons from Japan's experience with equal pay are on the more complex end of the spectrum of potential strategies. In Japanese companies, promotion tends to come from within — CEOs work their way up through the ranks. In addition, Japanese unions are quite effective and seek to maintain equality. These features of the Japanese economy have become embedded in the culture over decades.

Even with good policies, it may still prove difficult to reduce inequality due to certain aspects of human nature. Base human emotions such as fear, greed, and desire for status and respect may drive inequality, and push society towards high income differentials. Although human beings also have other, more altruistic motivations, our negative emotions are reinforced and exploited by advertising, news stories, television, movies, Internet sources, and other forms of consumer culture that send misguided messages about the benefits of "having more". A cultural shift away from the endless and exhausting pursuit of "more" to the satisfying and secure recognition of "enough" is a prerequisite to implementing changes in economic institutions. How this cultural shift might occur is discussed in more detail in Chapter 12.

The movement for greater income equality can learn much from other past, successful movements — particularly those that sought to achieve other forms of equality. Thanks to these movements, racism, sexism, and homophobia have become socially unacceptable. The goal now is to make greedy behaviour as socially unacceptable as racist or sexist behaviour. Three important lessons from past movements include:

- Before adopting a change, people must believe that they and their families will be secure; new economic institutional arrangements must be able to provide this security.
- Public education is a critical component of the cultural shift; people must be aware of the benefits of equality, democratised work places, and related ideas before they can support them.
- Big changes in society require a political movement and a home for that movement (e.g. universities, community groups).

Conclusion

Reduction of inequality would make everyone in the UK better off. The inspiring benefits of greater equality are waiting to be taken advantage of. The key is to attack inequality on a variety of fronts, starting with a strong movement to democratise economic institutions. Oftentimes it is an external threat that compels a social or economic shift (e.g. Japan's equality sprang from its horrendous experience in World War II). Whether such a threat or crisis appears or not, the UK can build a stronger and more resilient economy by actively seeking the transformation of economic institutions to provide greater equality.

Questions for Further Research

- What are the fastest, most effective, and politically acceptable policies to increase equality in the UK and elsewhere?
- What is an acceptable gap between the highest and lowest earners? How small should the gap be to maximise the benefits of equality?
- What other mechanisms besides higher pay can be developed to reward outstanding contributions in the workplace?

7. Enough Debt: Reforming the Monetary System

“There is a confusion between money speculation and wealth creation. The fact that you can tap something into a computer and there is now more money in your bank account is not creating wealth, it’s just creating money. These two have to be reconnected.”

— Molly Scott Cato, Cardiff School of Management
Workshop Speaker

Background

In the UK, most of the money in circulation is created by private banks in the form of interest-bearing loans. This money, which is created electronically and loaned into existence by private banks, accounts for about 97 percent of the money in circulation, dwarfing the 3 percent of money created by the Bank of England and the Royal Mint in the form of banknotes and coins.⁸⁵

Banks are able to create money because they can issue loans far in excess of their deposits. Historically, banks were restricted to lending certain multiples of their deposits (i.e. “fractional reserve banking”), but there is now very little restriction on how much money UK banks can create.

Money that is created by banks as loans must eventually be paid back by the borrower. This means that the borrower must go out into the real economy and earn this money, generating economic activity in the process. Furthermore, in addition to the principal, borrowers must also pay back interest on their loans. When a loan is paid back the principal ceases to exist, but the same does not apply to the interest. This accrues to the bank.

Because more money must be paid back than was borrowed in the first place, the total money supply must expand over time if loan defaults are to be avoided. This additional money can only come from one place: more loans. In other words, for the financial system as it is currently set up to function, the total amount of debt must increase over time.

This debt-based monetary system drives three things: (1) *economic growth*, as the need to pay back an increasing amount of debt requires an increasing amount of economic activity, (2) *inflation*, as the money supply tends to increase faster than the volume of goods and services produced, and (3) *economic instability*, because if the banks stop lending, the system collapses.

As Figure 7.1 shows, the money supply and GDP grew at a similar rate in the UK between 1965 and 1985. However, following the deregulation of the finance industry in 1986 (the so-called “Big Bang”), the money supply started to grow much faster

than GDP. In recent years, the money supply has become almost completely detached from the real economy, as new financial instruments have allowed UK banks to create more and more money out of thin air. The disconnect between the money supply and economic activity is a major cause of the economic and financial instability whose consequences we are suffering now.

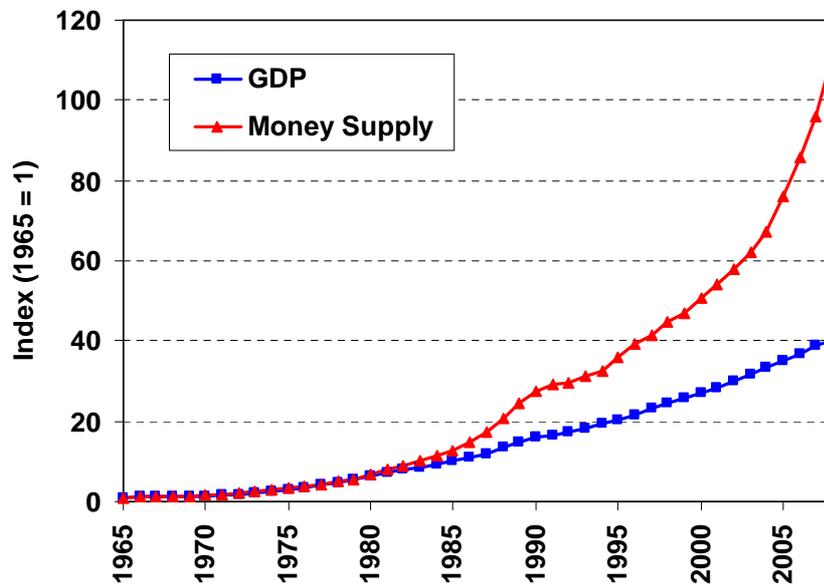


Figure 7.1: The money supply (as measured by M4) and economic activity (as measured by GDP) in the UK, 1965–2008. Source: see note 86.

The money supply has been able to increase much faster than economic activity because money represents debt, not wealth. Debt is an abstract mathematical construct, and as such, there are no physical limits to how much of it can be created, or how fast it can grow via compound interest. The only real limit is the amount that people and companies are willing to borrow. Wealth, on the other hand, ultimately comes from the planet's resources. Its growth is constrained by biological and physical laws.⁸⁷

Money serves three important functions in a complex, modern society. First, it is a *medium of exchange*, an intermediary used in trade to avoid the inconveniences of a pure barter system. Second, it is a *unit of account*, as things are sometimes assigned money values for accounting purposes even if they are not being bought or sold (e.g. unsold inventories in warehouses). And third, it is a *store of value*, in that it can be saved and still used to purchase goods and services in the future.⁸⁸

For a money system to operate, people must have trust in it. Trust in money largely exists because the government guarantees the currency, and is willing to back it up in times of crisis. Yet control of this necessary public resource, and the profit made from producing it, is given to a small number of private banks. The ability to create money and lend it at interest gives UK banks over £20 billion in interest a year, while taxpayers get less than £3 billion from the issue of banknotes and coins.⁸⁹

Moreover, this right to create money gives extraordinary power to the banking sector, including the ability to decide where investments occur in society.⁹⁰

The role of the financial sector should be to allocate capital efficiently in the economy — i.e. to invest scarce resources in enterprises that will make the best use of these resources. For providing this service, the financial sector should earn a modest share of the profits. However, instead of allocating capital efficiently, the financial sector is using complex financial instruments to create and redistribute money to itself, at great cost to the rest of society. A third of the money created by banks in recent years was simply loaned to other banks.⁹¹

Vast sums of money are being made in (i.e. redistributed to) the financial sector through speculation as banks buy and sell financial instruments such as stocks, bonds, derivatives, and real estate, and profit from fluctuations in their price. In these transactions, the underlying value of the assets is not important — it may not even change. All that matters is whether they can be sold for more than they were purchased. Money is being created and shuffled about in a shell game where nothing tangible is produced, and where at the end of the game the banks have all of the money.

When the global context is taken into account, additional problems emerge. At present, the U.S. dollar and the euro serve as the main “reserve currencies” in the world. Central banks in other countries hold foreign exchange reserves in these currencies to support their national economies and facilitate the balancing of external trade debts. This gives a tremendous advantage to the U.S. and Eurozone countries because other countries are willing to sell their goods and services to the U.S. and Europe, but don’t use a lot of the money they receive to buy American and European products. Instead, they leave this money sitting in their central banks. The result is that the U.S. has received billions of dollars worth of imports from developing countries, while giving little in return except for paper notes and electronic credits.⁹²

Proposal

The proposal made by Molly Scott Cato and Mary Mellor in the *Workshop on Money and the Financial System* is for a diversity of currencies, each serving a different purpose.⁹³ The proposal includes a *national currency* that is created debt-free by a public authority, *local currencies* that are created by communities to support relocalisation of the economy, and a *global currency* that is linked to CO₂ emissions to tackle climate change. The intention of this three-part proposal is to curb the demand for growth in the monetary system, and transform it into one that is sustainable and equitable.

National Currency

The first part of the proposal is that private banks should be prohibited from issuing money as debt. To accomplish this, the reserve ratio should gradually be raised to 100 percent, so that banks are no longer able to create money out of thin air. The practice of creating money as debt should be made illegal, in the same way that counterfeiting is. At the same time, the power to create money should be transferred to a public authority such as the Bank of England, who would decide the amount of

money necessary to facilitate exchange in the economy, create it debt-free, and transfer it to the government to spend into existence.⁹⁴

Under this system, savings and investment would be separated. A customer could choose to save money by depositing it in a bank, where it would remain. This money would not earn interest and the customer might be charged by the bank for this safe-keeping service. Alternatively, the money could be invested, through a bank or other financial intermediary, and potentially earn interest. In this case, the customer would have no access to the money until the loan was repaid, in contrast to the current system where deposits can be redeemed on demand, even if they have been loaned by the bank to someone else.

As the public reclaims the power of money creation, the priorities for investing the money created should be determined democratically, and the allocation of public money should be decided by political authorities. The money could, for example, be used to build the infrastructure for a low carbon economy (public transport, insulation for one million homes, etc.) or to finance social programmes.

To prevent inflation, government taxation and expenditure would need to be linked to the system of money creation. If prices started to rise, money could be removed from circulation using taxes. Conversely, if prices started to fall, additional money could be created and spent into existence. This system would allow the size of the money supply, and hence inflation, to be controlled more effectively than is possible with the current debt-based banking system.

Local Currencies

The second part of the proposal is that local currencies should be created to support relocalisation of the economy. A local currency is a currency that is issued by the community in which it is used, and that is intended for trade in a small area only. Local currencies carry a number of benefits:

1. Since local currencies are only accepted within a small area, their use encourages the purchase and production of local goods and services. For a given level of economic activity, more of the benefit accrues to the local community and less drains out to other parts of the country or world. This helps to revitalise local economies.
2. Local currencies build community and trust by encouraging social interaction between producers and consumers.
3. Local currencies reduce fossil fuel use (and hence CO₂ emissions) by reducing the distances that products need to travel (i.e. fewer food and trade miles).
4. In an age of financial uncertainty, local currencies provide an alternative medium of exchange to a single national currency. The result is a more resilient monetary system. Local currencies also encourage local production, which again builds resilience and increases a community's ability to cope with global crises.

A number of local currencies have already been launched in the UK, largely as a result of the Transition Towns movement. These include the Totnes Pound, Lewes Pound, Stroud Pound, and Brixton Pound (Figure 7.2).⁹⁵

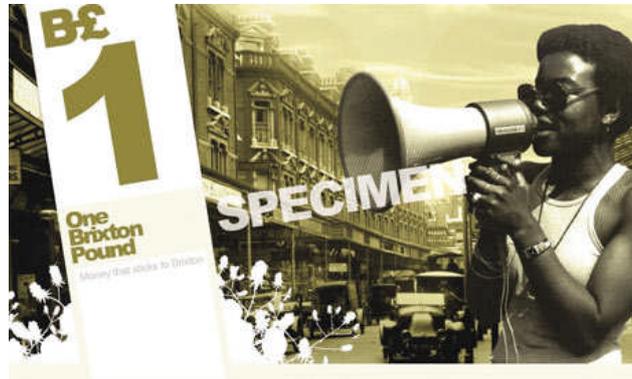


Figure 7.2: The Brixton Pound.

The substitution of local production for national or global production may be further enhanced by mechanisms that increase the speed at which a local currency circulates relative to the national currency. One such mechanism is *demurrage*, which is effectively a negative interest rate that causes a currency to lose its value over time, thus encouraging those holding it to spend it. The Stroud Pound, for example, is designed to lose 3 percent of its value every six months.⁹⁶

International Currency

The third part of the proposal is that the UK should promote and participate in a global negotiation to create a neutral international currency that is not controlled by any single country (or group of countries). The new international currency could either be created as *fiat money*, meaning that its value would be derived only from its declaration as legal tender (this is the case for all reserve currencies today), or alternatively, it could be given value by linking it to a physical resource.

It is worth considering linking the new international currency to the right to emit carbon dioxide, by creating it as an *energy-backed currency unit* (EBCU).⁹⁷ In such a scheme, international trade (including trade in permits to emit CO₂) would be conducted using EBCUs, which would be distributed on a per capita basis. Countries would have to constrain their consumption within a fixed carbon limit, established by their ration of EBCUs. A country that emitted a large amount of CO₂ would have less of the international currency available to purchase goods and services, while a country that emitted a small amount of CO₂ would have more of the currency available for settling trade balances. In this way, the EBCU could help solve two problems at once: climate change and global trade imbalances.^{98, 99}

If the international currency was not linked to carbon, but was instead created as fiat money, then some mechanism would be needed to set the exchange rate between national currencies and the international currency. One possibility would be to base

the exchange rate on median income, which would equalise wages between countries.

Discussion

Workshop participants agreed that a steady state economy would require a different kind of monetary and financial system to the one we have now. However, the question of whether the proposals described above represent the right types of reform was more open. Much of the discussion focussed on how the proposals would work in practice and how barriers to their implementation could be overcome. One strong point made was that as well as a diversity of currencies, we also need a diversity of financial institutions, e.g. more mutual and community-based finance organisations.

Other key issues discussed in the workshop include:

- **Inflation:** In order for a system of publically created money to be accepted, it is necessary to dispel the myth that such a system would necessarily result in inflation. Whenever money is created, either by banks or a public authority, there is the potential danger of inflation. What matters is not *who* creates the money, but how much of it is created, and how it circulates. Money can either circulate by being created by private banks as loans and recovered through debt repayment, or it can circulate by being created by a public authority and recovered through taxes. Although there are examples of hyperinflation occurring in countries where money was issued by the government (e.g. Zimbabwe and the Weimar Republic in Germany), it is too simplistic to claim that the cause of inflation in these countries was simply the government creating money. In reality, the creation of money by government is usually the result of, rather than the cause of, an economic crisis. During the financial crisis, the Bank of England, which is a public institution owned by the UK government, created £200 billion through *quantitative easing*.¹⁰⁰ The Bank used this newly-created money to buy financial assets such as government bonds, but it could just as easily have invested the money in the infrastructure for a low carbon economy. In any case, this example demonstrates that a public authority can create a significant amount of money without causing inflation.¹⁰¹
- **Role of institutions:** The role of existing institutions such as the Bank of England would likely change in a steady state economy. Currently, the main objectives of the Bank are to (1) keep inflation close to the target rate of 2 percent per year, (2) protect and enhance the stability of the financial system, and (3) issue secure banknotes.¹⁰² In a steady state economy, the Bank of England would likely manage the amount of money in circulation more directly than it does now. As a public institution at arm's length from the government, the Bank would decide whether the amount of money in circulation needed to increase or decrease in order to provide sufficient currency for exchange. If the money supply needed to increase, the Bank would create the new money and transfer it to the government to spend. If the money supply needed to decrease, the Bank would require the government to remove money from circulation through taxation.

- **Interest:** If the debt-based money system were replaced by a stable money system, a major driver of economic growth would disappear. However, it would still be possible for banks to act as financial intermediaries and lend invested money at interest. The need for people to pay back more money than they borrowed might still put pressure on the economy to grow, and thus be environmentally problematic. The practice of lending at interest has historically been banned by many major world religions, largely because it tends to increase inequality within society. The rich lend money to the poor, and the poor must pay this money back with interest. In effect, interest payments are a regressive form of taxation from the poor to the rich. If interest itself is incompatible with the environmental and social goals of a steady state economy, then we may need to think differently about how savings and pension systems work.
- **Concerns about carbon:** Three concerns were raised about linking the international currency to CO₂ emissions. First, such a scheme may be putting too much focus on one particular environmental issue at the exclusion of others. Second, money is something that people generally want to earn more of, not less, and therefore it might be better to back the international currency with a natural resource whose quantity we want to increase. And third, if fossil fuels are eventually replaced by renewables, and the world stops emitting CO₂, the currency would have no physical backing.

A number of obstacles to achieving monetary reform were identified. Most relate to the argument that reforming the monetary system appears to be a very difficult task:

- **Vested interests:** Banks make huge profits from being able to create money out of thin air and lend it at interest. They are unlikely to give up this power easily, and have incredible resources at their disposal to oppose change. As Mayer Amschel Rothschild, the founder of the Rothschild family banking dynasty stated, "Permit me to issue and control the money of a nation, and I care not who makes its laws."¹⁰³
- **Institutional inertia:** The current monetary system is deeply integrated into the political and economic system. To make the changes that are necessary may require a "new Bretton Woods", but without the preceding World War. As one workshop participant questioned:

What's the "route in" nationally and regionally when our regional economic strategy in the Northwest was written by Goldman Sachs, informed by the Treasury requirement for GDP and GVA growth, and backed by European finance and money and bank underwriting? We're going into these structures and suggesting we move away from that growth model. It's virtually impossible to even get them to meet with you to discuss it.

However, several opportunities and potential actions to promote monetary reform were also put forward:

- **Raise awareness:** There is a need to increase the public's understanding of how the banking system works. If people understood how inequitable and

unsustainable the current debt-based money system is, it would be much easier to promote change to a system of public money creation. However, the financial system is very complex, and many of the concepts involved are not easy to communicate. In order to raise awareness, the monetary reform message needs to be translated into simple sound bites that capture the imagination of the public.¹⁰⁴

- **Work with local authorities:** The coalition government's austerity budget will result in funding cuts to local authorities, who may struggle to find the money to run basic social services. To meet funding shortfalls, local authorities could create their own currencies, as was done in the U.S. in the 1930s,¹⁰⁵ to spend on local services and leisure centres. If local authorities accepted local currencies as Council tax, it would create demand for these currencies, and businesses would find it much easier to circulate them.
- **Promote points systems:** Rules are more flexible for electronic money or "points" systems than for alternative paper currencies. The Social Trade Organisation, an NGO based in the Netherlands, has created electronic currency schemes in Central and South America, which are not referred to as "money" but as "points".¹⁰⁶ These points system may provide a good model for alternative currencies in the UK.
- **Make transitional demands:** The transition from the current banking system to a 100 percent reserve system would be heavily opposed by those who control the monetary system, even if the steps taken were very gradual. A potential way forward is to make "transitional demands", i.e. to champion policies that appear possible under the current economic system (such as a land value tax or citizen's income), but actually require a shift to a steady state economy in order to implement.
- **Use the crisis as an opportunity:** As Stanford economist Paul Romer stated, "A crisis is a terrible thing to waste."¹⁰⁷ The financial crisis that began in 2007 exposed serious problems in the financial system, and has cost taxpayers vast sums of money. The coalition government has created an independent commission to investigate whether separating retail and investment banking (i.e. breaking up the major banks) would reduce systemic risk.¹⁰⁸ There is an opportunity to build on this debate and make the case for more fundamental reforms such as reintroducing exchange controls or eliminating debt-based money creation. The precedent set by the use of quantitative easing in the UK shows that publically issued money can work. Moreover, the government now owns a controlling stake in two of the four major banks in the UK (Lloyds and RBS), which makes change all the more realisable.

Conclusion

The current debt-based money system is one of the main drivers of economic growth, inflation, and instability within the economic system. If the size of the economy is to be stabilised, then the monetary system must be as well. Private banks should be prohibited from creating money out of thin air, and control of the money supply — a public resource — should be returned to a public authority. Local

currencies should be created in order to revitalise local communities, and the UK should promote and participate in a global negotiation to create a neutral international currency. These changes will not be easy, and powerful interests will oppose them. Nevertheless, the way the current system works is so outrageous that raising awareness could go a long way towards driving change.

If fundamental changes are not made to the monetary system, then the economy will continue to be plagued by crashes and crises. When the next crisis occurs, alternative policies need to be ready to implement. As U.S. economist Milton Friedman once wrote:

Only a crisis — actual or perceived — produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable.¹⁰⁹

Questions for Future Research

- Is it necessary or desirable to back the proposed international currency with carbon?
- Should lending at interest be abolished (or avoided)?
- Are there historical examples where the issuance of public money has worked successfully, and what lessons can be learned from these examples?

8. Enough Poor Indicators: Changing the Way We Measure Progress

“I want some quantitative measures of what I’ve seen in people’s faces around the world.”

— Jay Jones, University of La Verne
Workshop Participant

Background

The main economic indicator in use today, and probably the most politically influential of all indicators, is gross domestic product (or GDP). Its importance in policy-making is hard to overstate. New policies are assessed in terms of their impact on GDP. Government budgets are evaluated in terms of their predicted effect on GDP. Even sustainability is frequently framed in terms of reducing environmental impact per unit of GDP. In short, national progress has become synonymous with increasing GDP. But what is GDP, and is it a good indicator of progress?

In simple terms, GDP is a measure of economic activity — of money changing hands. Consumer spending on food, clothing, or entertainment contributes to GDP. Government investment in education also counts towards GDP. These are expenditures that most people would consider to be desirable. However, if there is an oil spill, such as the BP disaster in the Gulf of Mexico, the money spent by the government on clean-up also contributes to GDP. If more people get cancer and require medical treatment, their medical costs count towards GDP. The costs of war, crime, and family breakdown all cause GDP to rise. In the language of economics, GDP does not distinguish between benefits and costs, but lumps everything together under the banner of “economic activity”.

People hold a variety of views on the meaning of progress (Box 6.1), and many of these run counter to increasing GDP. Although per capita GDP has more than tripled in the UK since 1950, surveys of life satisfaction indicate that people have not become any happier. Beyond the level of income required to meet people’s basic needs and provide for some comforts, additional income does not appear to improve our lives.¹¹⁰ Studies suggest that a variety of other factors, such as living with a partner, good health, a secure job, low crime, trust in institutions, volunteering, and not watching too much television, improve well-being.¹¹¹

Box 6.1: What is Progress?

Workshop participants were asked to define what progress meant to them. Here are some of their responses:

“Relationships, freedom of expression, prevention of extinction and protection of ecosystems, empathy for other people and non-human species, lifelong education, fair trade, fulfilment, security, increasing life expectancy, creativity, arts, dance, drama, biodiversity, tolerance, trust, respect, raising moral values, balance, health, more time for others, disarmament, valuing unpaid work”

Our main economic measuring stick, GDP, appears to be a very poor indicator of progress, even in an economy where the goal is growth. It would be an even less useful indicator of progress in a steady state economy, where the goal is to achieve sustainable scale, fair distribution, efficient allocation, and a high quality of life. GDP provides little information on whether we are achieving these goals. Although GDP growth and increases in resource use tend to go hand in hand, zero growth in GDP would not be indicative of a steady state economy. Zero growth in GDP could still be accompanied by declining stocks of natural capital or increasing inequality, both of which are counter to the goals of a steady state economy. For these reasons new indicators are required to supplement or even replace GDP.

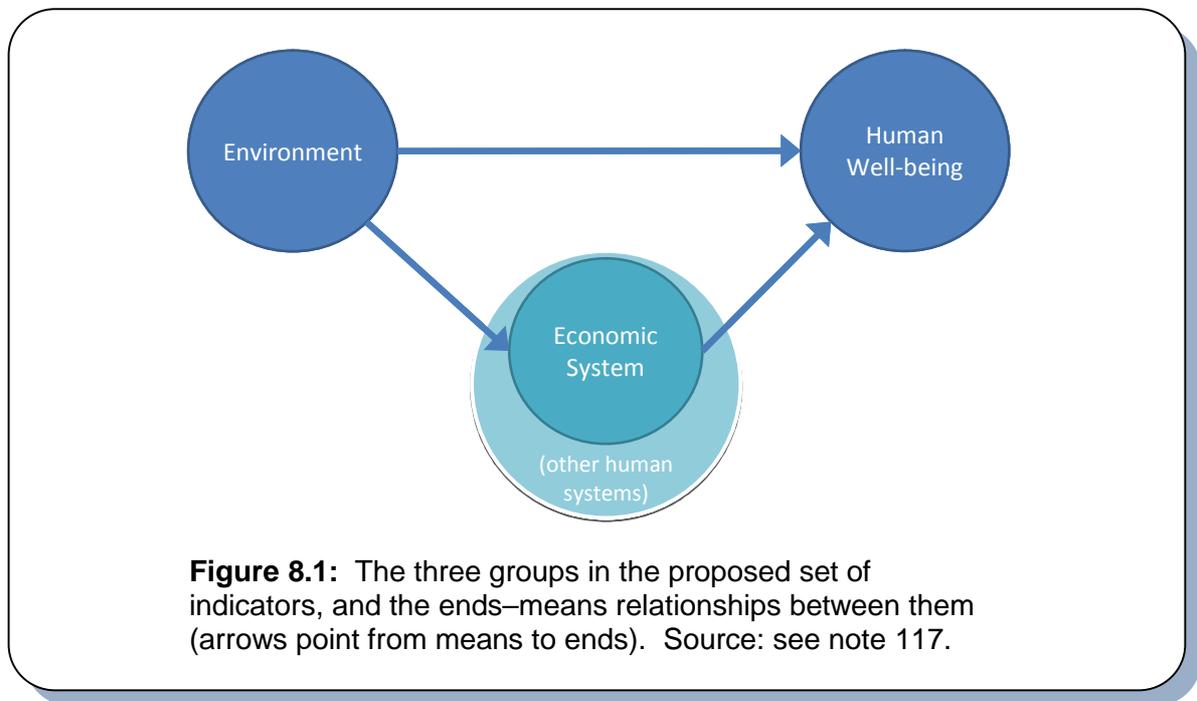
There are several initiatives around the world that are investigating alternatives to GDP. These include the European Commission’s *Beyond GDP* initiative,¹¹² the OECD’s project on *Measuring the Progress of Societies*,¹¹³ and the *Commission on the Measurement of Economic Performance and Social Progress* launched by French president Nicholas Sarkozy, which recently released its report.¹¹⁴

Government bodies in many countries, such as France, the UK, Bhutan, Costa Rica, and Ecuador are starting to take seriously alternative ways of measuring progress. They are doing this partly because of the criticisms of GDP, but also because there is a recognition that goals and priorities in society *are* changing. A UK poll found that 81 percent of people support the idea that the government’s main objective for its citizens should be the “greatest happiness” rather than the “greatest wealth”.¹¹⁵ Similarly, an international survey found that three-quarters of respondents believe health, social, and environmental indicators are just as important as economic indicators and should be used to measure progress.¹¹⁶

Proposal

In the *Workshop on Measuring Progress and Quality of Life*, Saamah Abdallah proposed creating a new set of indicators to replace GDP.¹¹⁷ This set of indicators would be divided into three groups: (1) the environment, (2) the economic system, and (3) human well-being. Each group would include one headline indicator, and a number of more detailed sub-indicators.

Figure 8.1 shows these three groups, and the relationships between them. This grouping helps to separate *ends* (i.e. goals) from *means* (i.e. the way to achieve these goals) — a critical distinction. In the proposed indicator system, **sustainable and equitable human well-being** is considered to be the *ultimate end*, or key outcome to strive towards. Other goals are means in support of this end.



To achieve a high level of well-being in society, it is necessary for human systems such as the economy to function properly, i.e. for jobs to be available, prices to be stable, and inequality in society to be low. The economic system is in turn dependent on the environment, as all resources used by the economy come from the environment, and all wastes produced by it must return to the environment. The environment also affects human well-being directly, by providing goods and services that are essential to life on earth, such as fresh water and a stable climate. Without these *ultimate means* (the services and natural resources provided by the environment) there would be no humans, let alone sustainable and equitable human well-being!

The headline indicator proposed for the Environment group is *ecological footprint*. The footprint calculates the biologically productive land and sea area necessary to generate the resources consumed by the citizens of a country, and absorb the wastes produced.¹¹⁸ It is also a measure that accounts for the embedded environmental impacts of trade. This means that goods produced in China, but consumed in the UK, are captured in the UK's ecological footprint rather than China's.

The headline indicator proposed for the Human Well-being group is *happy life years*. This statistic is obtained by multiplying two sub-indicators together: *life expectancy* and *life satisfaction*. Life expectancy is a measure of physical health, a component of well-being that can be measured objectively. Life satisfaction, on the other hand,

is a measure of how people actually experience their lives. As such, it can only be measured subjectively, by asking people about their experiences. A survey question similar to the following is generally used to assess life satisfaction:

On a scale of 1 to 10, how satisfied are you with your life as a whole these days?

Of course, well-being is about more than just life expectancy and life satisfaction, and the headline indicator would need to be complemented by other sub-indicators of well-being. Indicators that measure *flourishing* should be included in this group, to assess how well people's psychological needs are being met (for example, needs for autonomy, competence, and relatedness). The elements that are included should be more or less universal (i.e. important to all people worldwide). Such an approach would provide a multi-dimensional understanding of well-being.

A headline indicator for the Economic System group was not identified in the workshop. However, *income inequality* is a strong candidate, since low inequality is critical to achieving the goal of sustainable and equitable human well-being. As discussed in Chapter 6, studies have shown that societies with lower levels of income inequality tend to have fewer health and social problems, among the rich and poor alike. The ratio of the incomes of the richest 20 percent to the poorest 20 percent of society is a simple measure to calculate and understand, and could be used as a headline indicator for this group.

Other measures of the functioning of the economic system, such as the *unemployment rate* and *inflation rate*, remain vitally important and should be included as sub-indicators within the Economic System group. A measure of economic activity should also be included, but whether GDP should be used in this role is an open question. It may be better to replace GDP with a measure such as the *Genuine Progress Indicator (GPI)*. The GPI uses the same money-based accounting framework as GDP, but adds the value of beneficial activities like household and volunteer work (which are not counted in GDP), and subtracts the cost of undesirable expenditures on crime, pollution, and family breakdown.¹¹⁹

It is not only important to look at the indicators within the three groups, but also to see how the groups relate to each other. To achieve sustainable and equitable well-being, societies need to enhance the efficiency with which natural resources are transformed into well-being. This efficiency could be measured by an additional overarching headline indicator such as the *Happy Planet Index (HPI)*, which divides happy life years (the headline indicator for the Human Well-being group) by ecological footprint (the headline indicator for the Environment group). The HPI can be thought of as the ultimate efficiency ratio as it calculates how much of the ultimate end (human well-being) we are getting per unit of the ultimate means (natural resources). See Box 6.2 for some selected HPI results.¹²⁰

Box 6.2: The Happy Planet Index

The Happy Planet Index was calculated for 143 countries in 2005. As the results below show, the UK has room to improve its performance at translating resource use into well-being:

1.	Costa Rica	76.1
2.	Dominican Republic	71.8
3.	Jamaica	70.1
...		
74.	United Kingdom	43.3
...		
114.	United States	30.7
...		
143.	Zimbabwe	16.6

Note: Scores are out of a possible 100.

Discussion

There was strong agreement in the workshop that GDP is not a good measure of progress, and that new indicators are needed. Participants were enthusiastic about the idea of using surveys to ask people directly about their well-being, instead of trying to measure well-being indirectly. There was a feeling among participants that although the proposed system of indicators “doesn’t give us the moon on a stick”, it is very useful, and an improvement on GDP.

Key issues that were discussed in the workshop include:

- **Defining and measuring well-being:** A clear definition of human well-being is a prerequisite for any attempt to measure it. However, even with a clear definition, there could be problems with asking people questions about their well-being: different religious or cultural beliefs can affect how people interpret and answer survey questions. That said, there is compelling evidence that what people say about their subjective state matches the inner reality: measures of subjective well-being are strongly correlated with the reports of friends, measures of brain activity, and physical functioning (such as blood pressure and levels of cortisol).¹²¹ Moreover, because they are based on direct survey questions, subjective well-being data provide information that objective (but indirect) indicators such as income and education level cannot.
- **The role of the state:** There was some debate over what the appropriate role of the state is with respect to human well-being. The tradition of classical liberalism would argue that the state has no legitimate role in the affairs and choices of individuals beyond protecting their private property and ensuring that they do not harm others. However, the purpose of government has evolved over time towards promoting a much wider range of people’s interests, including health and

well-being.¹²² The state could constrain its activities in this area to attempting to improve social well-being (e.g. trust and community), or it could take a wider view and also try to improve people's personal well-being (e.g. life satisfaction and happiness).

- **Ends and means:** If human well-being is the ultimate end, and the means by which it is achieved are neglected, then some people could potentially achieve happiness in ways that are harmful to society (by hurting others for example). However, a focus on equity should help to ensure that one person's well-being does not come at the expense of another's.
- **True sources of satisfaction:** In the end, most people care more for their families, gardens, and pets, or for being in nature, doing crafts, and playing sports, than they do for the consumer products that clutter their homes. One workshop participant spoke of how much happier he was living in Africa where he didn't have to choose between two rows of toothpaste, and life was simple. Better social relations and opportunities for personal development often generate satisfaction more effectively than accumulation of consumer goods, and these sources of satisfaction tend to cause little harm to the environment.
- **Ecological footprint methodology:** The ecological footprint has been criticised on a number of fronts, but in particular for the method that is used to calculate the carbon footprint. This method translates CO₂ emissions from fossil fuel use into the area of forested land necessary to sequester these emissions. Some economists have claimed that this method exaggerates the size of the footprint, as more land-efficient methods of capturing CO₂ could be devised.¹²³ However, supporters of the ecological footprint respond that the indicator measures environmental impact under existing technologies, and forests are the "best technology" currently available. If new technologies are invented that capture CO₂ more efficiently, then these will be included in future footprint calculations.¹²⁴

The main obstacle to implementing a new system of indicators, such as the one proposed in this chapter, is probably the overly important role we give to GDP. The UK government already tracks a large number of alternative indicators related to resource use and well-being.¹²⁵ The problem is not so much that social and environmental data are not available, but that GDP always trumps other indicators. So long as the government's main goal is economic growth, we are unlikely to give alternative indicators the attention they deserve. But this doesn't mean that we should abandon efforts to advocate new indicators. As Dana Meadows, one of the authors of *The Limits to Growth*, wrote:

Indicators arise from values (we measure what we care about), and they create values (we care about what we measure)... [C]hanging indicators can be one of the most powerful and at the same time one of the easiest ways of making system changes — it does not require firing people, ripping up physical infrastructures, inventing new technologies, or enforcing new regulations. It only requires delivering new information to new places.¹²⁶

Two potential ways to promote a new system of indicators include:

- **An educational campaign:** In order to knock GDP off its pedestal and replace it with a more sensible collection of indicators, we need to make indicators something that people care about. At the moment most people have little idea of what GDP measures, but if they did, they would probably be a lot less enthusiastic about policies designed simply to increase GDP. An educational campaign to raise awareness about what GDP measures could be a very effective way to move the UK towards a steady state economy.
- **Government lobbying:** Direct government lobbying may be needed to change the way we measure progress. Measurement is a powerful way to change behaviour and policy, provided measures are taken seriously and seen to be important. If the UK government saw their two priorities to be increasing well-being and decreasing resource use, then many of the aims of a steady state economy could be achieved. If the government's goal were to change from increasing GDP to improving well-being, then many proposals that are currently seen as "impossible" would suddenly become possible.

Conclusion

GDP is clearly a poor indicator of progress, and yet it remains the central indicator used in decision-making. To measure progress in a steady state economy would require us to move beyond GDP, and develop a new system of indicators that separates ends from means. This system should include three indicator groups: the environment, the economic system, and human well-being. Each group should include one headline indicator, and a number of detailed sub-indicators. The inclusion of indicators of subjective well-being in the system is a key requirement to measure progress towards the ultimate goal of *sustainable and equitable human well-being*. Numerous indicator initiatives around the world suggest that GDP's days are numbered, but action is still required to raise awareness of GDP's failings, and promote a better way to measure progress.

Questions for Future Research

- How should well-being be defined, and to what degree should physical health be considered part of well-being?
- Are the headline indicators identified the best choices, and what should the sub-indicators in the three groups be?
- Does inclusion of the economic system as a separate indicator group risk sidelining the other two groups?

9. Enough Job Losses: Securing Employment

“Ultimately society, not the economy, determines how many people are out of work.”

— Blake Alcott, University of Leeds
Workshop Rapporteur

Background

Over time, technological progress has allowed businesses to become more efficient at producing goods and services, such that a given volume of goods can be produced with much less labour today than was previously possible. Instead of using new technologies to reduce working hours, however, we have largely used them to produce more goods and services (i.e. grow the economy), while keeping working hours relatively constant. The choice to use labour productivity in this way has made economic growth a requirement for creating and maintaining jobs. As Peter Victor remarks in his book *Managing Without Growth*:

The shortage of employment has become more important than the shortage of products. Whereas in the past we needed to have more people at work because we needed the goods and services they produce, now we have to keep increasing production simply to keep people employed.¹²⁷

In a steady state economy, it would not be possible to continue to increase production if it resulted in an increase in resource use and waste emissions. Indeed, for the UK to make the transition to a steady state economy, resource use and waste emissions must be *reduced* to be within ecological limits. If improvements in resource efficiency cannot achieve these reductions on their own (and there is little evidence to suggest that they will be able to do so),¹²⁸ then reductions in production and consumption will also be required. All else being equal, with less production, there will be less work to be done in the economy, which would result in rising unemployment unless new policies are adopted to prevent this from happening.

Proposal

Martin Pullinger and Blake Alcott each offered a proposal in the *Workshop on Employment* to prevent job losses and achieve full employment in a steady state economy.¹²⁹ Martin’s proposal is *working time reduction* and Blake’s is *guaranteed jobs*.

Working Time Reduction

The first proposal is to use labour productivity gains to increase leisure time, instead of production, by gradually shortening the paid working day, week, year, and career.

In Western economies like the UK, labour productivity — the quantity of goods and services that a worker produces per hour of work — has typically increased by about two percent per year. Assuming that labour productivity continues to increase at this rate, we could have a four-day work week in 12 years, a three-day week in 25 years, and so on, with no decrease in incomes.¹³⁰

The government could facilitate working time reduction (WTR) by creating policies to encourage paid workers to work less throughout their lives, via fewer hours per week, longer career breaks, earlier retirement, and so on.

WTR policies would be beneficial in a number of ways:

- Instead of technological progress causing some people to lose their jobs while others keep theirs, the reduced amount of labour required would be spread more evenly throughout the population. Everyone would do a bit less paid work, and fewer people would be forced out of their jobs. Applying this scheme would prevent unemployment from rising, and reduce pressures on the welfare state (such as the high cost of benefits payments).
- A reduction in working hours is likely to improve well-being. Once people's basic needs are met, most people don't need more consumer goods, they need more time. WTR allows individuals to pursue well-being in less materialistic ways, by giving them more time to spend with friends and family, participate in the community, engage in creative activities, volunteer, and pursue personal and spiritual development. The "convenient truth" is that reducing consumption and improving well-being may go hand-in-hand.¹³¹
- WTR is itself a potential mechanism to stabilise (or even reduce) resource use and waste emissions. If paid working hours were reduced at a rate that matches the increase in labour productivity, people could work less and still earn the same income, spend the same amount, and thus consume the same amount. Combined with changes in production methods and in the types of goods and services purchased, WTR could help reduce the total environmental impact of the economy over time. Alternatively, if paid working hours were reduced faster than gains in labour productivity were made, people would earn less, spend less, and thus consume less. In this case, total consumption would fall and the environmental impact of economic activity would be reduced more quickly.

Policies to influence the working patterns of individuals are by no means novel. They are often referred to as "work–life balance" policies, and have been in place in many European countries for years. While work–life balance policies have no environmental aims, and often exist alongside policies aimed at increasing total paid work in the economy rather than decreasing it, they nevertheless provide useful insights into how WTR policies could be designed and operate in a steady state economy.

Examples of work–life balance policies include minimum holiday entitlements, limits to working hours, retirement policies, and parental leave. In the UK, if parents have children under the age of 8 (or 18 if the child is disabled), they are legally allowed to request shorter working hours, with a proportionate reduction in pay.

In the Netherlands, work–life balance policies go a lot further. Under the Wassenaar Agreement (1982), unions and employers agreed to reduce unemployment by sharing the available labour. Individuals also have the right to request reduced working hours in their jobs, and the right to take career breaks of up to three years in length under the Life Course Savings Scheme, introduced in 2006 (see Box 8.1 for more information on the Dutch Life Course Perspective). These policies have helped the Netherlands to achieve the lowest working hours among high income (OECD) countries, as well as very low unemployment (below 4 percent in 2009) and a high labour force participation rate (almost 80 percent of the working age population).^{132, 133}

Box 8.1: The Dutch Life Course Perspective

The Dutch have used the “life course perspective” to develop work–life balance policy that focuses on two key resources in people’s lives: time and money.

Time: Dutch work–life balance policies provide people with greater sovereignty over their own time, allowing them to enter and leave the labour market more easily, with protection from adverse impacts on their career or future employability. For example, Dutch employers are prohibited from firing an employee on the grounds that he took a career break, or requested reduced working hours.

Money: Dutch work–life balance policies allow people to separate (to some extent) when they work from when they receive income. They do this in two ways: (1) through borrowing and saving facilities, and (2) by benefits payments from the state to the individual. With respect to the former, an individual may save part of her income in a special savings account during periods of employment, for use during a later career break or period of shorter working hours. With respect to the latter, the state may provide benefits payments to an individual when she exits the labour market for reasons that are outside of her control (such as job loss or illness), or to engage in activities that are considered socially valuable (such as child care, retirement, or lifelong learning).

It is worth noting that the work–life balance policies described above assume that all adults should normally derive their income from undertaking paid work, and that their lifetime expenditure on consumption should match their total lifetime income. Work–life balance policies do not in general *guarantee* an income, but do improve income security by facilitating transitions into and out of paid work, and by protecting individuals from certain risks.

These examples of work–life balance policy inform a set of recommendations for WTR policy to support a steady state economy in the UK:

- Individuals should have the right to adjust their working patterns to their preferences (instead of the right to leave paid work only for specific purposes, as is currently the case). This right would include the ability to:
 - alter weekly working hours;
 - have flexibility in work patterns; and
 - take career breaks and early retirement.

These changes would substantially increase employee freedoms.

- Rules should be introduced at the sectoral and/or national level to set a cap on the amount of paid working hours, where support for this can be achieved.
- Support and incentives should be offered to encourage an overall reduction in paid working time that exceeds increases in labour productivity, and to distribute the remaining work fairly. Support mechanisms should include borrowing and saving facilities, and employment and career protection. Incentives should include financial incentives to reduce paid working time, and incentives to make non-paid activities that improve well-being more attractive.

Guaranteed Jobs

The second proposal to achieve full employment in a steady state economy is for the state to act as the “employer of last resort” and create jobs for those wishing to work but unable to find employment. The right to work is included in Article 23.1 of the 1948 Universal Declaration of Human Rights and has been partially enacted in India, Argentina, and some European cities (e.g. Zurich). In the same way that the state guarantees primary schooling, garbage collection, and medical care, it could also guarantee jobs, and in-so-doing decouple the goal of full employment from the size or growth rate of the economy.

Traditionally, unemployment has been fought using indirect economic means. Economic growth, deficit spending, and the WTR policies described above are all examples of indirect economic approaches to reduce unemployment. Although they create the conditions in which jobs may be created, they do not guarantee jobs. The alternative is to fight unemployment directly and politically.

A guaranteed jobs policy furthers three important goals:

1. It provides income for those who are out of work but not on welfare benefits;
2. It uses relatively cheap labour to do what are perceived as useful public works (caring, cleaning, gardening, building, and so on); and
3. It relieves the psychological and social problems that arise from wanting to work but not being able to find a job.

Of these three goals, the third is the defining one because the first two can largely be achieved by other means. For example, the first goal could be achieved through a

citizen's income (see Chapter 6), while the second could be achieved by financing public works through normal channels.

The main argument for a guaranteed jobs policy, however, is that it directly guarantees success in achieving full employment. While economic growth, deficit spending, and WTR policies might indirectly achieve a greater number of jobs, they also might not. Furthermore, a guaranteed jobs policy would help reassure people that the transition to a steady state economy would not lead to unemployment. Such a policy would not, however, be useful in stabilising or reducing the size of the economy. This must be done using other policies such as resource caps and taxes (see Chapter 4), or working time reduction.

Discussion

The majority of the discussion in the workshop focused on the working time reduction proposal. There was a strong consensus that working time reduction policies should be pursued. Furthermore, during a general assembly, all conference participants were asked whether they would be in favour of the working time reduction proposal, and almost all hands were raised in support of it.

A variety of issues were discussed in the workshop. These include:

- **Defining work and leisure:** The distinction between work and leisure is not always clear. Not all work is paid, and not all time spent outside of paid work is leisure. Interpretations of these two terms can vary, but a rough definition equates work to producing, and leisure to (potentially) consuming. WTR policies focus on reducing time spent in *paid* work, leaving more time for non-paid work, leisure, and other activities. However, as one workshop participant pointed out, it is not just economic activity that is the problem: all human activity that uses resources has an environmental impact, regardless of whether that activity is the result of paid work.
- **Incentives:** Two additional incentives to encourage a reduction in working hours that were suggested include (1) providing protection to part-time workers so that they have the same rights as full-time workers, and (2) taxing work more, in response to the evidence that people are currently working an unhealthy amount.¹³⁴ With respect to the second idea, couples could be taxed jointly (i.e. as one person) to encourage work sharing.
- **Resource scarcity and environmental restoration:** There are two factors that could reduce, or perhaps even eliminate, the need for specific policies to achieve full employment in a steady state economy. The first of these is resource scarcities such as Peak Oil. If energy prices rise substantially due to a shortage of fossil fuels, then machines that rely on cheap oil may become too expensive to operate. The result could be a shift towards more labour-intensive means of production — more farmers and fewer tractors for instance — which could create a substantial number of jobs.

The second potential source of new jobs is environmental restoration, i.e. repairing the damage done to the environment. While there is much work to be

done in this area, it is not clear who would pay for it. Still, there is potential to encourage more voluntary (unpaid) work on restoration, an activity that people could spend more time on if their paid work were reduced.

A number of concerns and potential obstacles to implementing WTR policies were also identified:

- **Individual freedoms:** The WTR proposal described above suggests that individuals should be allowed to adjust their working patterns to match their preferences — an increase in employee freedoms. It is assumed that employees would use this freedom to reduce their working hours, and there is some evidence to support this assumption. For example, surveys show that 40 percent of full-time workers in Britain would prefer to work fewer hours at their current hourly wage, while only 5 percent would prefer to work more hours.¹³⁵ Moreover, when asked to choose between higher future income and more leisure, the majority of survey respondents choose more leisure.¹³⁶ However, if people do not choose to reduce their working hours voluntarily, or do not respond to incentives, then working time reductions would need to be made legally binding to be effective. This would result in a decrease in individual freedoms, with possible negative implications for people’s well-being.
- **Fairness:** WTR policy must be structured in such a way so that it does not result in some people having too little income to meet their basic needs. While high-earning professionals like engineers could reduce their working hours and still maintain a high standard of living, the same is not true for workers already close to the poverty line. In parallel to WTR, issues of inequality must also be dealt with (see Chapter 6), and the social safety net must be secured.
- **Efficiency and competitiveness:** From the perspective of an employer, WTR could lower efficiency and competitiveness, and increase costs (due to more people to train, for example). Too much flexibility could make teamwork difficult, and customers could suffer if staff members were not available during regular working hours. Furthermore, there is the danger that capital could flee to other countries in search of higher profits, unless action was taken to prevent this from happening (see Chapter 11).
- **No choice but to work:** An important question is “Why do we work?” To a certain extent, people work because they enjoy doing so, but there are at least two other reasons related to the socio-economic system. First, people work because they need the money that employment provides to pay rent or a mortgage and to buy food, clothing, and other goods and services. The economic system, in particular debt-based money creation (see Chapter 7), makes it necessary for people to work, even if they would like to work less. As one participant remarked, “If I could give up one or two days [of work] a week now, I would do it like a shot. But the way I’m taxed, the way that my debt is based against the house I have, and all those sorts of issues means it’s impossible for me to do that. I’m locked in.”

Second, people work because there is a social pressure to do so. There is a strong notion of a “work ethic” within society, a set of values based on hard work

and diligence. With a job comes social recognition. People who are out of work for a year or two are no longer seen as competitive in the work place. Moreover, a lack of faith in the social safety net in the UK causes people to have anxieties about their future, which motivates them to earn as much money as they can for security. In these ways, we are conditioned to produce. But, as we will discuss in Chapter 12, we are also conditioned to consume. In Sweden, for example, as much money is spent on advertising each year as is spent on education.¹³⁷ In order to satisfy our consumer desires we must work for an income.

Conclusion

Instead of using technological progress to produce more goods and services, we could apply our ingenuity to increase leisure time. Individuals should be given the freedom to adjust their working patterns to their preferences, while support and incentives should be offered to encourage an overall reduction in working time throughout society. The gradual reduction of working time would help maintain employment, reduce resource use, and improve well-being. If unemployment were still a concern in the transition to a steady state economy, the government could act as “employer of last resort”, and guarantee jobs in the same way that it guarantees education and medical care. These ideas have already been shown to work in practice. The challenge is to free people from the systemic and social pressures that prevent them from choosing to work less.

Questions for Future Research

- In the UK, how many people would rather work less than have a higher salary?
- What incentives (besides those mentioned already) could be used to encourage people to take advantage of WTR schemes?
- What would the effect of a guaranteed jobs policy be on resource consumption? (While such a policy might eliminate unemployment, there is the possibility that it could increase environmental impact by increasing production.)
- How much economic production would be required to satisfy people’s needs in a steady state economy (as compared to the current economic system), and what effect would this have on the amount of labour needed?
- What effects do various forms of business ownership and various methods of profit distribution have on the ability to implement WTR policies?

10. Enough Excess Profits: Rethinking Business and Production

“The economy lives on prerequisites. It cannot produce social justice, or an employed workforce, or emotional stability, or love. If the economy tries to do this, to produce something like love, you call it prostitution. If the economy tries to produce social stability, you call it corruption. The economy can only produce goods and services.”

— André Reichel, Universität Stuttgart
Workshop Speaker

Background

In growth-based economies, macro-economic and government policies are designed to encourage firms to increase profits continually, by reducing costs and competing for market share. The negative effects of this approach frequently make headlines: BP in the Gulf of Mexico, Enron, the banking crisis, the “race to the bottom” in developing countries — the list goes on.

But of course business is not all bad. A great many of the goods and services we rely on are produced and distributed by private sector firms via markets. Profitable businesses generate employment, create new technologies, and foster entrepreneurialism. It is, however, essential that policy makers recognise that business-as-usual with increasing resource throughput cannot continue. Firms, with the support of governments, must adapt in order to operate within ecological limits.

A popular strategy to tackle this challenge is *eco-efficiency*. Eco-efficiency is essentially a business-as-usual strategy that relies on technological innovation within the existing market system to reduce environmental impact. The idea is that businesses should “green” their production, for example by building more fuel-efficient cars or devising more efficient technologies and management principles, but at the same time still aim to increase the level of production. Proponents of the eco-efficiency approach argue that it is possible to decouple economic growth from resource use and environmental impact, and in-so-doing achieve “green growth”.¹³⁸

But as we saw in Chapter 2, there are significant flaws with this argument. While technological innovation needs to be encouraged to achieve a steady state economy, it is not enough on its own. A *sufficiency* strategy is needed as well. Sufficiency strategies focus on product use and product demand, rather than on production and supply. They emphasise “small is beautiful” principles,¹³⁹ and favour fewer products, less material throughput, and a lower scale of economic activity that respects ecological limits. Sufficiency is also about innovation, but in behaviour instead of technology, and it promotes the vision of living “the good life”, instead of

growing the economy. Both eco-efficiency and sufficiency strategies will be required to achieve a steady state economy.

But what would adoption of these strategies mean for business? Is the drive to make profits compatible with a strategy of sufficiency? The short answer is that we don't know for sure, but we have two competing theories on what effect a steady state economy would have on business and production.

The first theory is that the current model of shareholder-owned profit-making corporations is adaptable to a steady state economy because profit and growth are two different things. Profit is the difference between a firm's revenue and its costs, whereas growth is an increase in total production. Thus a firm can grow without increasing profits, and increase profits without growing. Furthermore, even if growth and profits are linked at the level of the firm, it's possible to imagine a situation where as some companies grow, others go out of business, such that the total size of the economy remains the same.

The second theory has an opposing position to the first. It argues that the context in which businesses operate is very important, and that there is a connection between profit and growth. Companies must compete against one another for market share (or simply to survive), and it is possible to make greater profits through economies of scale (i.e. the more a company produces, the cheaper unit costs are, and the easier it can reach the financial break-even point). Furthermore, investors are unlikely to invest in a company that isn't growing. Thus the profit motive itself may be a problem for a steady state economy.

The solution to this dilemma may lie in the notion of achieving "right-size" profits (i.e. profits that are big enough but not too large), an idea advanced by André Reichel in the *Workshop on Business and Production*.¹⁴⁰ The starting point for this idea is that there is no economic necessity for firms to grow beyond a certain point, and that point is determined by capital costs. The minimum condition for a firm's economic well-being is its ability to pay off all capital costs including wages, R&D investments, and so on. Everything beyond this is economic profit.

Economic profit need not be a problem in a steady state economy, so long as the ecological impacts connected with it do not compromise ecological well-being. In general, the higher a firm's total revenue, the higher its ecological impact, although technological innovation may allow a firm to reduce its ecological impact per pound, euro, or dollar of revenue to some degree (Figure 10.1).

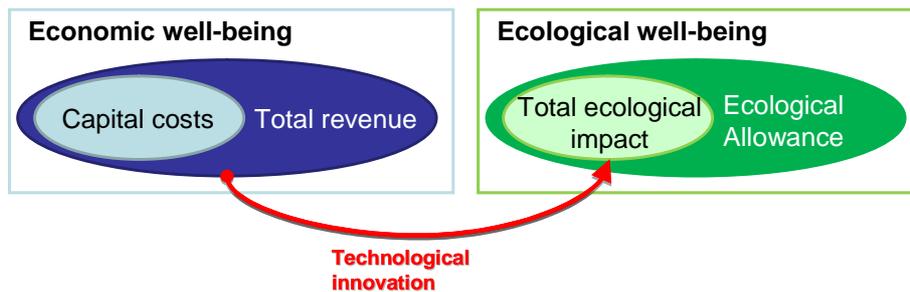


Figure 10.1: The relationship between economic well-being and ecological well-being. As a firm's total revenue increases, so does its total ecological impact. Source: see note 140.

In order to determine whether a firm's total ecological impact is sustainable or not, it is useful to define the concept of an *ecological allowance*, i.e., the amount of environmental impact that a firm cannot exceed if overall ecological well-being is to be maintained. An individual firm may be placed into one of four categories based on whether its total revenue is greater than or less than its capital costs, and whether its total ecological impact is greater than or less than its ecological allowance. These categories are: right-size profits, excess profits, economic loss, and combined ecological and economic breakdown (Figure 10.2).

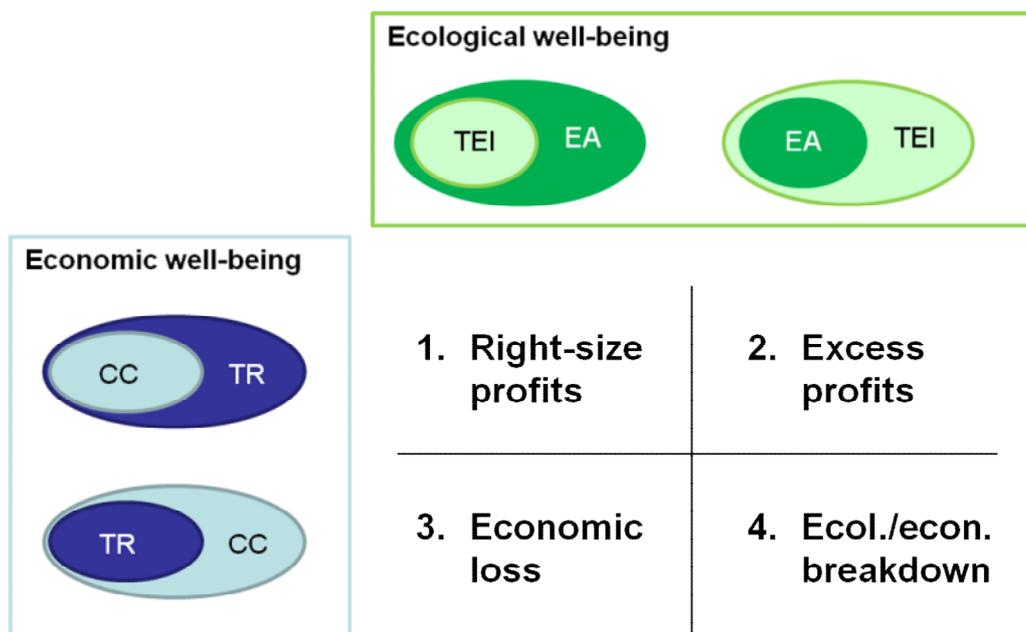


Figure 10.2: Categorisation of firms based on the relationship between total revenue and capital costs, and total ecological impact and ecological allowance. (In the figure, CC = Capital Costs, TR = Total Revenue, TEI = Total Ecological Impact, and EA = Ecological Allowance.) Source: see note 140.

The goal for a firm in a steady state economy would be to achieve “right-size” profits, i.e. profits that are big enough to allow the company to be economically viable, but not so large as to cause the company to exceed its ecological allowance.

If a firm was not achieving right-size profits (but fell into one of the other three categories), it could take a variety of actions to correct the situation. If the firm fell into the “excess profits” category, it would be economically viable, but it would need to reduce its total ecological impact to be sustainable. It could achieve such a reduction either by improving its resource efficiency (through technological innovation) or by lowering product sales. Product sales could potentially be lowered by shifting towards product maintenance and service, or product redesign and remanufacturing.

If the firm fell into the “economic loss” category, it would be ecologically sustainable, but it would need to either reduce its capital costs or increase its total revenue to be economically viable. Revenue could only be increased if this did not cause the firm’s total ecological impact to exceed its ecological allowance.

And finally, if the firm fell into the “combined ecological and economic breakdown” category, it would need to reduce both its capital costs and its environmental impact — a significant challenge. However, this situation might yield the greatest possibility for transformation towards a sustainable business as it would stress the organisation to question all its goals and missions, including what it actually produced and sold (a physical product or the fulfilment of a need).

Proposal

André Reichel made two proposals to help businesses achieve right-size profits in a steady state economy.¹⁴¹ The first is to create ecological allowances for companies based on CO₂ emissions. The second is to encourage a shift towards alternative forms of business organisation.

Ecological Allowances

At present, the ecological impacts of a firm’s activities are only measured in relative terms. Commonly used techniques such as lifecycle assessment and carbon footprinting are valuable tools, but they do not provide a target for ecological sustainability. Businesses can say that one product is more ecologically sound than another, or that a process is more efficient than it was a year ago, but not whether a product or process is ecologically sound in absolute terms.

To achieve a steady state economy, absolute measures are required. Corporate management needs a robust measure of a company’s total ecological impact, and an ecological allowance measure to compare this to. Managers need an ecological indicator designed for business that answers the question “How big is enough?” Without such an indicator it will be very difficult to find support for de-growth strategies in the boardroom, or to achieve right-size profits.

Although further research is required to identify the best indicator of total ecological impact for firms, there are three reasons to consider using CO₂ emissions as the

primary measure of a company's ecological impact. First, CO₂ emissions are the main cause of anthropogenic climate change, which is one of the most pressing global problems today. Second, CO₂ emissions are easy to measure and strongly correlated with other physical quantities such as energy consumption. And third, it is possible to estimate a global annual CO₂ budget that should not be exceeded if global warming is to be limited to less than two degrees Celsius (generally considered to be the threshold for avoiding "dangerous climate change").¹⁴²

With an annual CO₂ budget for the earth, it is then possible to calculate an ecological allowance for individual firms. The process includes two steps:

1. Apportion a share of the global CO₂ budget to world industry based on industry's current contribution to global emissions. (Note that the global CO₂ budget would need to decrease each year in order to meet the two-degree target, and thus the budget for industry would also decrease from one year to the next.)
2. Determine the ecological allowance for an individual company by multiplying the CO₂ budget for industry by the ratio of the company's total revenue to world industrial revenue.

In this way, firms could calculate their ecological allowance based on a finite emissions cap and their share of total economic activity. The intention of this allowance is to provide information for responsible entrepreneurial action, not to increase regulation. Management needs numbers in order to manage, and such an ecological allowance gives a "sustainability number" to firms.

Alternative Forms of Business Organisation

Not all forms of business organisation have the growth impulse found in profit-maximising shareholder corporations. There are at least three other types of business organisation that do not need to pursue growth: co-operatives, foundations, and low-profit limited liability companies:

- **Co-operatives:** Co-operative organisations are a very old and successful form of firm. As legal entities, co-operatives pre-date the modern corporation by some hundred years; they were first formalised as legal entities in 18th century Europe and North America. The Rochdale Pioneers and Philadelphia Contributorship are well-known early examples. Co-operatives are built around a common goal that is beneficial for their members, and are based on equal control of organisational decisions by all members. In a sense, they resemble a household turned into an organisation.

In recent years, co-operatives have seen a renaissance in economic life. In the UK, John Lewis (a co-operatively owned department store) recovered from the recession more quickly than many of its rivals,¹⁴³ and membership of The Co-operative (the UK's biggest farmer) is increasing.¹⁴⁴ In Germany, there was a major and favourable overhaul of co-operative law in 2007, which now allows for limited liability co-operatives. The Mondragon co-operatives in Spain were established in the mid 1950s. As of 2006 there is even a European Co-operative: the *Societas Cooperativa Europaea* (SCE).

- **Foundations:** Foundations are another rather old legal form of organisation. By definition, a foundation is a non-profit organisation, often with charitable purposes. Some corporations, such as Robert Bosch in Germany, are owned by foundations (in this case the Robert Bosch Foundation). Others, such as Mozilla Corporation, have transferred their patents and copyrights to a foundation (i.e. the Mozilla Foundation). The engineering and design firm Arup is wholly owned in trust for the benefit of its employees and their dependents.
- **Low-profit limited liability companies:** A low-profit limited liability company (L3C) is a rather new form of business that is a hybrid between a non-profit and for-profit organisation. An L3C runs like a regular business and can be profitable, but its primary focus is not to make money. Instead, an L3C focuses on achieving socially beneficial aims with profit-making as a secondary goal. In the UK, these businesses take the form of Community Interest Companies (CICs). In Germany there is a similar legal form called “gemeinnützige GmbH” (public interest Ltd.), and even a “gemeinnützige Kapitalgesellschaft” (public interest corporation). These legal forms often benefit from lower corporate taxes, or even no tax at all (in the German case).

To support the transition to a steady state economy, policy makers should encourage these alternative forms of business by (1) making it simpler to set up (or change to) these forms, and (2) by taxing excess profits in shareholder corporations.

Discussion

There was significant discussion in the workshop on whether a universal carbon target for firms was a necessary and sufficient condition to achieve sustainability. There was support for this idea, but with some caveats (see below).

General issues discussed in the workshop include:

- **Getting the environment into the boardroom:** Existing strategies to reduce resource use (such as “cap-and-trade” approaches) leave environmental decisions at the financial level within firms, as the purchase of emissions permits is seen as just another cost of business. The introduction of a total ecological impact indicator for businesses (and a corresponding ecological allowance) would move environmental decision-making into the boardroom. A company’s environmental practices would be discussed and decided at the strategic level, as opposed to the financial level.
- **Carbon doesn’t capture everything:** An indicator of total ecological impact based on CO₂ emissions would be a useful tool. It would also be relatively straightforward to implement since businesses and policy makers are becoming increasingly familiar with using carbon emissions as a measure. However, there are many other important environmental issues besides climate change (e.g. biodiversity loss, ozone depletion, deforestation, etc.). Tracking CO₂ emissions would not necessarily allow a firm to determine whether it was operating within a true ecological allowance. A broader indicator such as the ecological footprint might be necessary to measure total ecological impact. Alternatively, different

measures could be used for different sectors based on their primary environmental impact.

- **Sector-specific targets:** Assuming carbon (or another single indicator) was used to measure total ecological impact, sector-specific targets could be used to encourage firms in carbon-intensive sectors to shrink and those in low-carbon sectors to grow.
- **Profits and growth:** To some extent, businesses set their profit targets based on what their competitors are doing. For example, Volkswagen has set a target to achieve 18 percent return on capital by 2020 (roughly three times what it currently has), because Toyota has set a target of 20 percent.¹⁴⁵ The goal to triple profits may seem rather arbitrary and unnecessary since the company is already doing well, but there is a logic behind this goal. If Volkswagen is not as profitable as Toyota, then investors will inevitably sell Volkswagen shares and buy Toyota shares. Shareholder-owned firms need to be at least as profitable as their competitors, and there is huge pressure on firms to grow in order to stay in this profit competition. While there are always companies going out of business, lessening systemic growth to an extent, investors respond by continually putting their money into the expanding sectors of the economy, encouraging growth. As one workshop participant stated, “If you have a system of profit-making companies dominating the economy, you will get growth.” Although profit-maximisation is certainly not the only driver of economic expansion, it is a factor that needs to be managed.
- **Degrowth may occur naturally:** There is a very strong relationship between energy use and economic activity. Global oil production is predicted to peak soon, and this peak will make global economic growth much harder to achieve, if not impossible. Environmental impact may be reduced simply because incomes are reduced. As one workshop participant remarked, “Don’t worry about degrowth, it will happen by itself. The question is how to make the transition without collapse.”

One potential obstacle to the ecological allowance proposal was identified:

- **Changing the system doesn’t change people:** Even with new business indicators and new organisational structures, people could still find ways to “beat the system”. If managers in one sector saw that managers in another sector had a higher ecological allowance, they might try to bend the rules to make their company look like something it was not (and thus increase their ecological allowance). Changing the system will not necessarily change the behaviour of those within it, and greed could still be a problem. Any actions on the part of firms (and in relation to business and production more generally) must still take place within a broader movement towards more sustainable living.

Several opportunities and potential actions to promote more sustainable business were also identified:

- **Develop governmental leadership:** Government should lead the transition to a steady state economy by creating an environment in which business

organisations are less driven by the profit motive. Government should ensure that alternative forms of business organisation are able to thrive by implementing appropriate regulatory and taxation policy (e.g. no corporate tax for Community Interest Companies). Both encouragement and enforcement are important.

- **Create standards:** Existing means of measuring and encouraging best practice, such as the ISO, BNS, and DIN standards, should be enhanced. A new standard for right-size business organisations, or businesses in a steady state economy, could be developed.
- **Join a co-op:** During the financial crisis, a number of profit-driven banks in both the UK and Germany went bust, whereas genuine co-operatives and mutuals did not. Banks whose mandate was to invest in local communities proved much more stable than banks whose objective was to maximise profit. Based on this lesson, we might all be well-advised to join a co-op!

Conclusion

To make the transition to a steady state economy, businesses need to move beyond eco-efficiency approaches, and towards sufficiency strategies. New performance measures will be required to allow businesses to operate within ecological allowances and achieve right-size profits. Although carbon doesn't capture everything, an indicator of total ecological impact based on carbon would be a good first step. A steady state economy will also require a shift towards alternative forms of business organisation such as co-operatives, foundations, and community interest companies. These organisational forms are not subject to the same growth imperative as profit-maximising shareholder corporations. Government must show leadership in the transition, both by driving the development of new indicators, and by creating the space for new corporate forms.

Questions for Future Research

- Is carbon the best measure of total ecological impact, or should a different measure be used?
- Is growth inherent to all forms of capitalism, or is it just a feature of the type of capitalism we have at the moment?

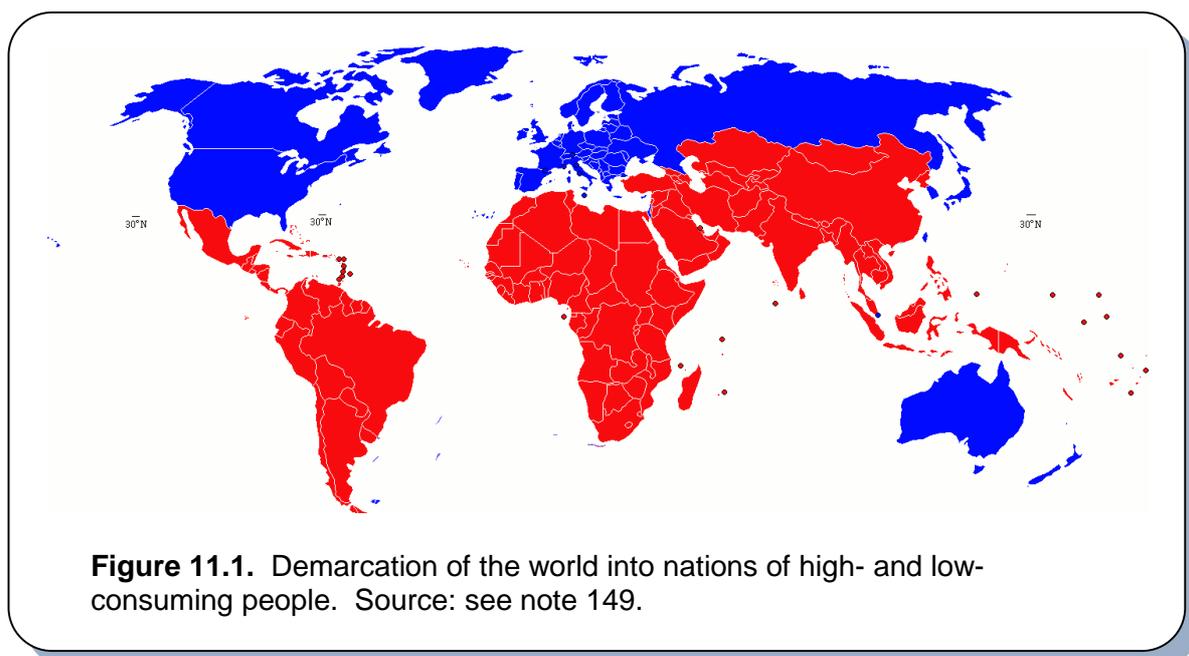
11. Enough Unilateralism: Addressing Global Relationships

“The world does not have an alternative development model that takes into account the profound challenges of this era, such as climate change.”

— Marco Sakai, University of Leeds
Workshop Speaker

Background

Over the last two hundred years, only a small number of countries have experienced high and continuous rates of economic growth, and they have done so largely at the expense of the rest of the world, which has remained almost stagnant in economic terms.¹⁴⁶ Only in the last sixty to seventy years have other countries begun to follow suit, emulating the development paths followed by their industrialised counterparts, but at different rates and with different outcomes. These differences in rates of industrialisation explain, to some degree, the enormous disparities between rich and poor — or North and South — around the globe (Figure 11.1). Only 15 percent of the world’s population lives in the so-called developed nations, yet these nations combined account for approximately 85 percent of global consumption expenditure.¹⁴⁷ Meanwhile, almost half of the world’s population struggles to subsist on less than \$2 per day.¹⁴⁸



This disparity is a problem of global proportions. How can we meet the human development demands of the poorest two thirds of people in the world within an economic framework that accepts the finite limits of the planet? Mainstream economists suggest that an increase in income per capita leads to a reduction in inequality across society (the Kuznets Curve).¹⁵⁰ They also argue that higher incomes reduce environmental degradation (the Environmental Kuznets Curve).¹⁵¹ The theory is that wealthy countries tend to have better environmental performance because they can spend surplus resources on pollution prevention and remediation (although wealthy countries also tend to purchase more products, and the manufacture and transport of these products is often linked to resource use and pollution elsewhere).

In essence, according to mainstream thinking, becoming rich not only takes care of poverty and social problems, but also provides a remedy for the environmental troubles we face. However, it's not possible to solve problems of poverty and inequality by endlessly growing the global economy, due to the biophysical limits imposed by the planet. Moreover, both Kuznets Curves have become highly suspect in theory and in real-world observation (see notes 152 and 153 for evidence regarding income inequality, and notes 154 and 155 for evidence regarding environmental degradation).

Unfortunately, the mainstream view of growth and development has blocked other, more innovative ideas from making it onto the global policy agenda. Human development has come to be understood in terms of poverty reduction and assurance of the ability to meet basic needs, as expressed by the Millennium Development Goals.¹⁵⁶ From the time that the Goals were published in 2000, nearly all discussions about attaining them have focused on economic growth as the policy tool to employ. Consequently, discussions about development generally revolve around stimulating and expanding trade. Governments and international organisations seldom consider alternative strategies for improving social, technological, or environmental capabilities across nations.

The result is that both rich and poor countries have become tangled in a convoluted web of international trade. Nations in the South depend on the North not only to obtain the financial resources they need via exports and foreign direct investment, but also to acquire manufactured and capital goods. Nations in the North depend on the South for raw materials, cheap labour, and other basic commodities, as well as for the huge markets they provide. The current trade scheme, although beneficial in some ways to some parties, comes with risks and can also lead to perverse results.¹⁵⁷

In the aftermath of the financial crisis of 2008 and 2009, for example, relatively poor, trade-dependent countries suffered from the consequences of irresponsibility and lower consumption in wealthy countries. The first effects of the crisis were felt by those emerging economies that were closely linked to the global financial markets. But international trade then fell sharply and commodity prices declined rapidly, events that cascaded among almost all poor nations¹⁵⁸ (although there were some notable exceptions¹⁵⁹). According to the United Nations, almost 100 million more people were drawn into extreme poverty because of these events.¹⁶⁰

To avoid this kind of systemic failure we need a development process that comprehensively accounts for the profound environmental, social, and economic challenges of modern times. This process should address (1) how high-income nations can reduce consumption and its associated consequences to fit within global ecological capacity, and (2) how low-income nations can achieve sustainable well-being by building low-carbon and less materially intensive economies.

Proposal

Marco Sakai's proposal in the *Workshop on Global Issues*¹⁶¹ aimed to accomplish two extraordinarily challenging goals: (1) provide stability in wealthy nations as they make the transition to steady state economies, and (2) raise the standard of living in poorer nations to equitable levels. The two main strategies of the proposal are:

1. Improve the institutional framework for global co-operation; and
2. Increase the capacity for local production.

Improve Global Co-operation

To make an orderly transition from the era of growth to the era of sustainability, it is necessary to stop considering the world as a collection of individual countries, and more as an integrated whole composed of heterogeneous societies and cultures whose fates are intertwined. The adoption of a steady state economy should not be implemented as a unilateral action that might create (or reinforce) profound divisions in the world. Instead, wealthy, non-growing economies and developing, expanding economies must work together and agree the specific mechanisms that will allow them to co-exist and co-develop in a mutually supportive, fair, and flourishing manner. As a first step, international organisations such as the United Nations, World Bank, International Monetary Fund, and World Trade Organisation should be democratised. These organisations should represent the interests of the large majority of people on the planet, not just those of a few nations.

Given that global resource use is already at an unsustainable level, the world cannot wait until all developing economies reach a certain size and level of development before they begin the shift to a steady state. It is vital, therefore, to incorporate a robust development discourse in the global policy agenda. Alternative development paths are needed to allow developing nations to increase the well-being of their citizens in less material-intensive ways than today's industrialised nations.

Increase the Capacity for Local Production

It is becoming increasingly common for products to be manufactured using a range of raw materials brought from diverse countries, assembled in some other nation(s), and subsequently redistributed to yet other regions of the planet for consumption. Sometimes nonsensical trade is the result, as the same types of products are traded back and forth.¹⁶² This kind of international transaction should be disapproved in international trade agreements, and local production should be supported where practical. Restructuring trade agreements and developing local production capacity can help lift poor nations out of poverty and move wealthy nations toward steady

state economies. In addition to providing these social benefits, such strategies can also reduce wasteful use of energy and material resources.

In order to eliminate the harmful dependency of the South on the North, and thus support localisation, wealthy nations should promote technology transfers to developing nations, under conditions that are advantageous to both parties. Wealthy nations should also start internalising environmental and social costs in their production processes to discourage environmental degradation and resource depletion.

Discussion

The transition from the growth paradigm to the steady state paradigm is not something that can be accomplished overnight. Changes in global politics and economics, and the structures that underpin them, may take decades to become fully realised. But given the failures of the current system, nations need to get to work immediately. Boldness is required, but not without prudence, as the consequences of a poorly managed paradigm shift could be disastrous. It is important to get the policies right to ensure a peaceful and prosperous transition.

Some further ideas to shape the policies proposed above include:

- **Start the transition in the right places:** The transition to a global steady state economy should begin in wealthy nations, such as the UK, where the costs of further economic growth outweigh the benefits. As the economies of rich countries stabilise and even contract, ecological space will be freed to allow poor countries to expand their economies and realise the benefits of growth.¹⁶³
- **Manage domestic side effects of transition policies:** As a nation like the UK enacts policies for a sustainable economy, negative effects could arise at home that require attention. For example, if producers were to internalise environmental and social costs: (1) UK products could become more expensive than those produced in growth-based economies, and (2) investment capital could flee the country due to fears of lower profits. The first of these potential problems could be handled by employing compensating tariffs on cheap imports. These tariffs would protect domestic industries from competition with countries where environmental and social costs were not being internalised, and the revenue derived from them could be used for international aid, or to compensate nations that maintain surplus ecological capacity. The second potential problem (capital flight) could be avoided by employing capital controls and minimum residency times for foreign investment.
- **Manage foreign side effects of transition policies:** Negative consequences from economic policies designed for a steady state economy could also arise abroad. Tariffs, localisation, and greater self-reliance in the UK and other wealthy nations, which are currently net importers of goods, could adversely impact foreign economies. Trade with poor countries could fall, with the potential to exacerbate the North/South divide. One possible strategy to prevent this from happening would be to promote South–South trade as a means of growing poorer economies (instead of continually expanding rich, high-consuming

economies). Trade between developing countries is already growing, with almost 40 percent of developing country exports destined for other developing countries. The majority of these exports, however, originate from just seven countries, including China and India.¹⁶⁴

- **Fund technology transfer:** The transfer of technology from nations where it's abundant to those where it's scarce is a key part of localising production and achieving economic convergence around the globe. New policies for the transition to steady state economies will provide opportunities to raise funds for technology transfer. Examples include funds raised from environmental tariffs, cap-and-trade schemes, or a Tobin/Robin Hood tax on international financial transactions.
- **Learn from the South:** The global North must recognise that there is much to learn from the global South. On measures of well-being and ecological stewardship, many middle and lower income countries outperform their high-income counterparts. Grassroots movements centred in the South have brought about huge positive social changes (e.g. the fair trade movement has worked to ensure that the benefits of trade accrue more equitably to low-income producers).
- **Maintain the benefits of trade:** During the transition to steady state economies (and afterwards), free trade relationships can be developed between nations that agree to trade on an equal footing, that is, those committed to stabilising the size of their economies and internalising costs, or those still raising living standards to acceptable levels in a sustainable way.
- **Reform old institutions and create new ones:** A new global economic model will require changes to existing global power centres and institutions that were designed to fit the needs of the old economic model. Questions remain about the extent to which current institutions can adapt.

Conclusion

The global context of the transition to a steady state economy provides many challenges and precludes unilateral decision making. It is essential, for example, for nations to consider collaboratively how to achieve universal human development in a scenario where some economies are growing or shrinking and others are at optimum size. Attempts to move towards a steady state economy on a country-by-country basis may be counterproductive, and doing so could create even more profound North/South divisions. The world has seen enough unilateral decisions and actions — the detrimental effects of them ripple around our hyper-connected planet. People, whether they live in wealthy non-growing economies or poor expanding economies, need to work together on specific mechanisms that will allow them to coexist and co-develop a sustainable, fair, and flourishing society for all.

Questions for Future Research

- If agreement is reached that the high-consuming nations are ready to make the transition to steady state economies, at what point should countries like China and India aim for a steady state?
- If exports slow or stop from nations that choose to internalise environmental and social costs, what would the effect be on various trading partners? How might the negative effects of a trade slowdown be managed?
- Can current economic institutions that focus on trade relationships adapt to handle the requirements of a sustainable economy, or is there a need for entirely new institutions, such as a World Environment Organisation? If so, who should establish these institutions, and how can they be designed to ensure that countries from both the South and North are fairly represented?

12. Enough Materialism: Changing Consumer Behaviour

“How can a ‘mass behaviour of enoughness’ be brought about?”

— David Fell, Brook Lyndhurst
Workshop Speaker

Background

Consumer spending typically accounts for about two thirds of economic activity in industrialised economies. As such, consumer behaviour strongly influences the behaviour of the entire economy. Under the current system, consumer spending and economic growth are inextricably linked — increasing consumption spurs the economy to get bigger, with all the accompanying side effects.

The character of consumer spending has evolved since the mid-18th century. Contemporary “consumerism” — a social norm that gives pre-eminence to “consuming” rather than “doing”, “being”, or “producing” — emerged in the 1960s and is widely seen as a dominant driver of behaviour by individuals, corporations and governments. Today the lending practices of banks, ubiquitous advertisements, and governmental stimulus spending are among the economic institutional arrangements that promote consumerism.

Since Thorstein Veblen coined the term “conspicuous consumption” in the late 19th century,¹⁶⁵ consumerism has been the subject of continuous critique by economists and social scientists.^{166, 167, 168, 169} The negative consequences of consumerism, as outlined by David Fell in his forthcoming book, *The Economics of Enough*,¹⁷⁰ can be summarised as follows:

- It is a behavioural paradigm (“more”) that is fundamentally inconsistent with the finite quantity of material resources on the planet;
- It is a behavioural norm comprising an unsustainable “hedonic treadmill”. No matter how fast individuals run towards happiness and fulfilment, they are always one step away, a setup that may contribute to widespread mental ill-health;
- It co-creates and reinforces systemic inequalities both within and between nations and communities.

Given the negative consequences of consumerism, the challenge is to create an alternative model of consumption in which the vast majority of citizens are routinely choosing “enough” rather than “more”. Hence, “enough” would become an inherent feature of a new value set that would drive positive changes, such as reduced resource consumption, improved psychological well-being, and greater equality. Such a revolutionary change in values — and it is a revolution rather than a series of incremental adjustments to the prevailing orthodoxy — is unlikely to happen quickly

or easily, given the forces lined up against it and the anxieties that will inevitably arise about such a transformation.

In summary, the challenge is to seek ways to instigate a shift to a “mass behaviour of enoughness”.

Proposal

It is no simple task to bring about a “mass behaviour of enoughness”. To understand the proposals that follow, it is worth analysing the context of this behavioural shift.

The revolutionary change in values envisaged would be enacted within an economic system which is complex, open and dynamic — a system in which the objectives of institutions and groups are not fixed but are, in large part, emergent properties. Social norms can be conceptualised as the emergent properties of social groups, and they are enormously powerful determinants of behaviour. The contemporary social norm of consumerism is one (powerful) set of emergent properties that dictates significant behaviours for many individuals in industrialised economies.

Not all behaviours, however, are subject to this social norm. Older people, for example, often spend less of their income on “things” and more on “experiences”, which tend to have a lower material impact. In addition, increasing numbers of people, either as individuals or as groups (e.g. “eco-hood” neighbourhoods), choose to live “downshifted” lifestyles or choose to live “off-grid”.

This context (consisting both of norms that emerge from social groups and of pockets of people already possessing a value set consistent with the desired model of consumption) contains the starting point for bringing about a “mass behaviour of enoughness”. The main proposal offered by David Fell in the *Workshop on Changing Behaviour*¹⁷¹ is for a rapid diffusion of new values through the manifold networks that comprise contemporary society. Such an exercise would be system-wide and would entail multiple points of influence, many of which would be beyond the remit of government. Some mechanisms which would help make this proposal a reality include:

- **Influential individuals:** Influential individuals occupy pivotal positions in social networks and are key figures in the processes by which new social norms emerge and diffuse through those networks. Such individuals need to be recruited as agents of change.
- **Community activism:** Organisations with objectives that challenge or contradict consumerism need to be supported and encouraged, both to expand their membership and to transmit their values and insights to the wider community.
- **Promotion of non-materialistic lifestyles:** Innovative media outlets can promote the benefits of non-materialistic lifestyles to specific target groups in a proactive manner.
- **Enabling new forms of institutions:** A particular role for the state lies in creating the enabling infrastructure in which new forms of corporate and civic

entities can emerge. Examples include organisations that manage assets for the purpose of delivering long-term well-being to asset owners, rather than delivering short-term financial returns to managers (e.g. land use planning, innovative taxation arrangements, and new classes of legal vehicles).

- **Overcoming resistance:** Resistance to the scale and type of change implied is sure to come from large corporations and the state. Mechanisms to overcome that resistance (e.g. consumer boycotts, support for new forms of enterprise, organised media campaigns, political lobbying, etc.) need to be developed and enacted.

Discussion

Workshop participants expressed broad agreement that the mechanisms for behavioural change outlined in the proposal provide a solid start, but they also felt that, in some cases, it is necessary to examine more deeply the root causes of the problems raised by consumerism. As one participant put it, “It is not enough to bring about change at the level of fashion.”

Four main themes ran through the discussion and characterised potential paths to develop the proposal further: (1) values, (2) motivation, (3) dealing with power, and (4) visualisation of change. These are explored below:

- **Values:** There is an implied acceptance across most of society that the self-seeking, individualistic values, which form the backdrop to consumerism, are reasonable and necessary. Part of this acceptance has been brought about by an evolution from community-based values to individualistic ones. This trend needs to be reversed. There was a very strong feeling in the workshop that people could and should take a personal stand. As one participant said, “We need to set an example by living our values and rejecting unnecessary consumer items — otherwise we lack the moral authority to inspire change. We need to be aware of the importance of our prophetic voice.”
- **Motivation:** Motivation is key to the process of behavioural change. People who are happiest are those who have intrinsic motivation and inner contentment. There needs to be a greater focus on the positive image of the alternative life and a demonstration that a consumer lifestyle is deadening and boring. Consumerism only appeals to some of the core human motivations (hedonism, status, achievement). Love, connectedness, friendship, spirituality and creativity are equally powerful sources of motivation (if not more powerful), and it is crucial to tap into these.
- **Dealing with power:** There is an urgent need to curtail the power of large corporations and the media, both of which exercise so much influence over people’s lives. It is important not to underestimate this power, which often uses subtle and even subliminal methods. Bankers, advertisers and manufacturers, however, are simply responding to consumer demand (including demand they create themselves). The shift needs to originate from people’s personal values, and from understanding the “mass infantilisation” programme to which the public

is subjected. Such a shift requires greater awareness of communication methods, persuasion, and psychology.

- **Visualisation of change:** A non-materialistic, sustainable lifestyle can be an attractive concept, but people need to be able to visualise such a lifestyle in concrete terms. Celebrities, as highly visual role models, could promote this lifestyle, but celebrity culture is part of the problem. As one participant exclaimed, “We should recognise that we can be the influential individuals. We don’t have to ‘buy in’ to celebrity!”

It is possible to use existing networks and leading-edge projects to elicit change. There are opportunities for change within our work places and local communities. The Transition Towns movement is an effective approach; it has captured many people’s imaginations and catalysed the formation of new social groups. If politicians see change happening on a sufficient scale, they will be under pressure to respond. Potential also exists for initiatives connected with a shorter working week and a citizens’ income to contribute significantly to a different way of thinking about consumption (see Chapters 9 and 6, respectively).

In light of the proposals presented in the workshop, and the subsequent discussion, the following “arenas for action” were highlighted as worthy of further exploration:

- Take a strong personal stand, based on non-consumer values and motivations;
- Participate in local initiatives that develop alternatives to mass consumerism, either by buying less, producing locally, or boycotting mass consumer outlets;
- Put pressure on local and national government through specific lobbying campaigns;
- Influence institutional culture (for example through places of work) to change patterns of consumerism in large and medium-sized organisations (with the National Health Service as a prime potential candidate);
- Influence professional practice (again within the workplace, especially those with “levers” in society like law firms); and
- Use the power of consumer pressure to influence corporations and the media.

The main obstacle identified was one of complexity in that big changes in consumer behaviour require massive shifts at a personal level and a societal level. Hence the questions for ongoing investigation (see box below) can be categorised into the same themes that spanned the discussion and reflect the need for dealing with this complexity.

Conclusion

Powerful forces are aligned to promote the culture of consumerism, a culture that ignores the finite nature of resources, coaxes people into chasing fulfilment in ineffective ways, and drives inequality. People from many walks of life are resisting these forces, however, and rejecting consumerism in favour of a vibrant culture of their own. The challenge is to support people who choose non-materialistic lifestyles and promote the diffusion of sustainable values throughout society. Methods for doing so include recruiting influential individuals as agents of change, encouraging community activism, publicising the benefits of non-materialistic lifestyles, enabling

new forms of business and civic organisation, and directly confronting the powerful interests that advocate consumerism. Through concerted and persistent action, the culture of consumerism and the value of “more” can be replaced by the culture of sustainability and the value of “enough”.

Questions for Future Research

- Values and motivation: How do we better understand the sources of motivation and value systems for human behaviour, and how can we use that knowledge to encourage a mass movement of enoughness?
- Dealing with power: How do we increase our knowledge of the prevailing forces and techniques used by corporations and the media to influence us, and how can we counteract them?
- Visualisation of change: How can we work with celebrities in a way that does not play along with “celebrity culture?” How can we capitalise on the increasing number of sustainable living projects, and create a critical mass of people to challenge the current consumerist model?

13. Enough Silence: Engaging Politicians and the Media

“We need a positive image and narrative for the steady state economy that emphasises well-being rather than hardship.”

— Workshop Participant

Background

To have a chance at implementing radical economic reforms, politicians and the media will have to break their long-held silence on the alternative to perpetual economic growth. Overcoming this silence is a critical step toward initiating an inspiring movement aimed at the transition to a sustainable and fair economy.

Many politicians and members of the media are unaware of the concept of a steady state economy. Others, having weighed arguments in favour of no-growth options, may reject them and support the growth paradigm. In either case, the profound environmental and social consequences of rising GDP (see Chapter 2) warrant further discussion and debate in public forums. Two main obstacles that prevent politicians and the media from engaging in such forums are:

1. The imperative to bolster economic growth trumps ideas about limits to economic growth in the minds of most politicians, academics and journalists; and
2. The steady state framework is viewed as theoretically and practically underdeveloped by many economists and decision makers.

A commonly held perception among institutions, and groups that hold power and influence public opinion, is that economic growth equates to prosperity and serves as a proxy for progress. For several generations, political parties have been locked in a competition to see who can promise the fastest growth and highest standard of living. It is seen as too risky for a political party to consider an alternative to economic growth. The media's coverage of economic issues is geared towards monitoring the amount of growth, and lack of growth is typically portrayed as a problem (witness the vocabulary used: recession, depression, economic downturn). Currently, academic training in economics, business, and politics does not offer much coverage of sustainable development and environmental issues, let alone models of a non-growing economy.

The alternative to economic growth is usually assumed to be regression to scarcity, deprivation, and primitive technology. Despite the plausibility, cogency, and increasing urgency of critiques of the growth-based economic model, people in places of power don't view a steady state economy as the answer. Many believe that a growing economy can be sustainable, but many others do not understand how a steady state economy would work. To be fair, most discussions of steady state economics have failed to provide a workable plan for how to achieve an orderly

transition to a civilised and satisfying steady state economy. Such a transition would need to provide livelihoods, security and well-being for all citizens.

The current economic crisis, however, provides a valuable opportunity to rethink economics, engage politicians and the media, and develop a robust theory about how to transition from the current model to a steady state economy.

Proposal

The questions and criticisms that surround the pursuit of perpetual economic growth in high-consuming nations such as the UK warrant attention from politicians, journalists, academics, and the general public. In the *Workshop on Engaging Politicians and the Media*, Ian Christie and Franny Armstrong proposed a number of strategies to help these issues obtain the attention they deserve.¹⁷² The strategies fall into four groups:

1. Conduct more research and analysis of the steady state model;
2. Develop a more public and accessible image for steady state economics;
3. Identify new forums to engage politicians, policy makers, and academics; and
4. Take local action.

Conduct more research and analysis: There is a need for more rigorous modelling and elaboration of how a steady state economy would work. In particular, there is a need to focus on how employment, welfare, and economic security can be sustained. Much more work could be done on ecological limits and how these can be reflected and respected in policy, especially regarding land use planning. In the UK, this work would complement existing projects in the Department for Environment, Food and Rural Affairs (Defra) and Natural England, among others. More work could be carried out at the local scale where, in some cases, there is a strong view that particular areas are “full” when it comes to demands for development of green field sites and construction of roads, airports, and other infrastructure. It may be possible to undertake experiments in steady state enterprise and planning in such areas.

Develop a more public and accessible image: There is an urgent need to find a new name for steady state economics, something attractive that resonates with the public. The production of an independent film, which focuses on human stories and takes people on an emotional journey, is potentially a powerful vehicle for breaking into the public consciousness. Such a film would help create a movement with enough strength and visibility to persuade politicians to get behind it. At that point, and possibly before, it will be crucial to seek out influential politicians who are likely to understand the problems with pursuing perpetual economic growth.

Identify new forums to engage people: Innovative ways need to be found to engage decision makers and opinion influencers in a more active debate about the problems of growth, and potential economic reforms to solve them. “Forums for exploration” with policy makers, politicians and researchers could provide places to discuss the implications of growth that are already recognised in policy, or becoming widely discussed (e.g. green belt development, rejection of “predict and provide” road policy, rejection of Heathrow expansion, designation of protected areas, UK

population and migration levels, carbon budgets and targets, and the 10:10 campaign). These forums could involve the National School of Government and inform training courses for new members of Parliament and local councillors. Agreement should be sought among leading business schools and economics departments to include compulsory coverage, within degree courses, of the different views concerning sustainability economics and the limits to growth. In addition, non-profit organisations and community leaders should be ready to pounce on opportunities afforded by public discussion of the economic crisis to promote alternative models for sustainable well-being.

Take local action: An annual second chamber of local government — something of a “House of Local Commons” — could provide a venue for discussing alternative environmental and economic policies. This concept would take the form of an annual local governance festival to showcase debates and exhibitions on local sustainability. The purpose would be to familiarise the public with a variety of sustainability issues. It would bring together policymakers, media representatives, campaigners, nongovernmental organisations, community initiatives and local voices for steady state principles and practices (e.g. Transition Town projects, faith communities, etc.).

Discussion

The proposals above provide some strong possibilities for stimulating the public interest. Some further ideas related to these proposals, as well as obstacles to be overcome, include:

- **Connect with people’s emotions:** Banging people over the head with data, figures, and rational arguments often fails to achieve an emotional response and persuade people to take action. Writing and using real stories and family situations can create an emotional impact and may provide a more effective way to get more consideration of the steady state economy.
- **Use the power of film:** Film is a useful medium for gaining support. Two versions of a film could reach targeted audiences: a long version for independent screening among the general public, and a short version aimed at policy makers. Several films that promote a non-growing economy are already in the works, or were recently released, including:
 - *The Urbal Fix* by Tom Bliss¹⁷³
 - *Life After Growth* by Leah Temper and Claudia Medina¹⁷⁴
 - *Hooked on Growth* by GrowthBusters¹⁷⁵
 - *The Economics of Happiness* by the International Society for Ecology and Culture¹⁷⁶

The most effective film might not have the style of a standard documentary. Instead, it could focus on a human story with a positive narrative and an emphasis on well-being. It would aim for maximum impact on changes in the law and business practices, possibly following the format of Franny Armstrong’s film *McLibel*.¹⁷⁷ Such a film could serve as a catalyst for a fundamental shift in how the public views economic growth. Potential obstacles include finding the right

mix of skills and obtaining funding. The main immediate action is to attract a film maker and a director.

- **Use creative means to come up with a better name:** Coordination of brainstorming sessions about how to change the language of steady state economics and create an inspiring message could generate valuable ideas. The “less is more” message needs to become a desirable rather than a fearful one. Finding a new name for the steady state economy, one that would interest people in discussing the merits and challenges of such an economy, is essential. The name needs to be simple and able to connect with popular values, emotions and events. “Life Beyond Growth” was one suggestion. Such a name would assist in creating a critical mass of people committed to taking the steady state concept forward. The challenge is to create a message that is immediately understandable and accessible without being trite. Harnessing the techniques of advertisers could help. The first action is to assemble and organise a crew of creative people.
- **Assemble supportive politicians:** A key to engaging politicians is getting a group of reputable politicians to come together — there is safety in numbers. The Labour Party is looking for a big idea. Politicians follow popular movements, but they are currently dodging the issue of overshoot in the economy by largely focusing on techno fixes and related approaches to dealing with environmental and social problems. A small but dedicated group of politicians could significantly raise the profile of no-growth options to deal with these problems.
- **Build strong centres of local activism:** Struggle and hard work at the local scale will bring results. The needed economic transition requires more than polite engagement with people. There is a need for strong, concerted local activism. The “House of Local Commons” is an interesting idea. It could include programmes for annual week-long festivals of local democracy in as many localities as possible. The festivals would provide an opportunity to link local discussion to wider issues, pick up on existing local initiatives, and harness the mood for localisation and the desire to participate in a different way of thinking and acting. The main obstacle may well be a reluctance to change. It is crucial, as a first action, to identify “pilot” councils to develop the concept. Collaboration with the Transition Towns movement could be useful, and other education channels could be opened for reinforcement (e.g. youth parliaments to engage with school children).
- **Declare basic principles:** A voluntary declaration, such as the CASSE Position on Economic Growth,¹⁷⁸ could be used to raise the profile of steady state principles in leading institutions and with the general public. The declaration could be signed by universities, think tanks, and other institutions. A major obstacle to gaining widespread acceptance of a declaration is the lack of support for steady state and degrowth concepts held by many decision makers and mainstream academics. An important first action would be to encourage mainstream/public figures to “break ranks”.

Conclusion

There is a disconcerting silence among politicians and the media about the downsides of endless economic growth. A similar and equally disconcerting silence shrouds the concept of a steady state economy. At the very least, most people can agree that some level of economic change is necessary to manage the environmental and social problems caused by economic growth. But such change must be preceded by serious public dialogue on the growth paradigm and alternative economic models. Ideas for engaging politicians and the media to pick up this dialogue range from the simple (e.g. finding an attractive name) to the complex (building an infrastructure of local activism). The time to put these ideas into practice is at hand — there is no more important or vital topic for vigorous public dialogue than the development of an economy that delivers sustainable well-being.

Questions for Future Research

- Is it possible to establish greater credibility for the steady state alternative by devising a theory of economic transition that runs counter to the “change is breakdown” mentality? Can this theory effectively address the arguments for avoiding change that will be made by powerful vested interests?
- How can the language of steady state economics be made more accessible? Which messages work, and which don't? Where appropriate, what is the possibility of harnessing the power of advertising?
- What would be a better, catchier name for a steady state economy?
- How can more balanced views of economic growth be included in the curricula of schools, colleges, and universities?



Part Three
Advancing the Economy
of Enough

14. A Blueprint for an Economy Built to Last

“The question is whether we can adapt. As individuals, we are incredibly adaptable, but institutions tend to be ponderous and resistant to change. If we fail to adapt, the future is particularly gloomy. But that’s not the only future that’s out there for us. If we put our minds to it, if we overcome the inertia in our institutions and learn new ways to manage the economy, there is a much brighter future on the horizon.”

— Peter Victor, York University
Keynote Speaker

An economy that is meant to last is akin to a building that is meant to last. The Parthenon still stands today from its completion in 438 BC because the architects developed a magnificent design and the builders delivered a solid foundation with an interconnected support structure. The same principles apply to creating a better economy: start with a good blueprint, construct a strong economic foundation, and build well-crafted policy pillars on top of it.

As the first part of this report discussed, we are clearly in need of a blueprint for a better economy. The business-as-usual approach of chasing perpetual growth is failing. It is not sustainable on a finite planet, and it is damaging the natural systems upon which the economy depends. It is also not solving the problems of unemployment, poverty, and inequality. Nor is it improving the well-being of those who already have enough material wealth. To address these issues we need a new macro-economics for sustainability.

This report brings together the ideas of the more than 250 people who attended the Steady State Economy Conference in Leeds. Some of the ideas presented in the preceding chapters will no doubt seem radical, and we do not expect readers to agree with every suggestion that was made. Even we, as the authors, have differences of opinion on specific issues. But the general direction that change must take is becoming increasingly clear — from *more* to *enough*, from *growth* to *stability*.

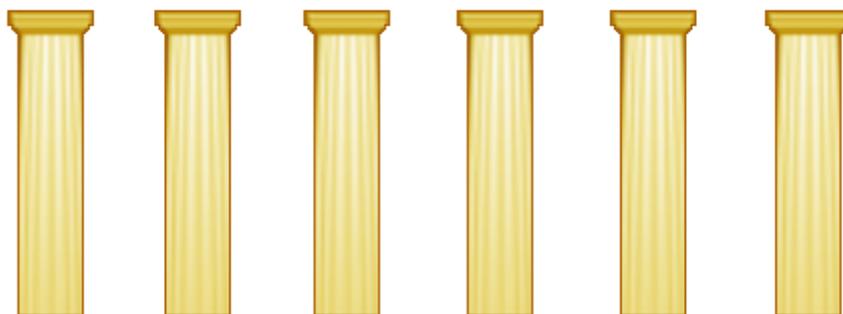
The ideas presented in this report form the beginnings of a blueprint for a sustainable, fair, and efficient economy. The blueprint is still a rough sketch, and some parts are not pencilled in as firmly as others, but the general shape of the building is clear (Figure 14.1). It includes a solid foundation (i.e. the features of the economy we want), a sturdy support structure (i.e. policies designed to achieve this economy), and a roof that is held up by this support structure (the goal of sustainable and equitable human well-being).

Blueprint for a Steady State Economy

Roof – The goal of a SSE: Sustainable and equitable human well-being.



Pillars – Policies to support a SSE and strategies for the transition: Limit resource use, stabilise population, provide equitable distribution of income, reform the monetary system, change the way we measure progress, secure full employment, rethink the structure of business, improve global co-operation, change consumer behaviour, and engage politicians and the media.



Foundation – Features of a SSE: Sustainable scale, fair distribution, efficient allocation, high quality of life, improved investment, optimal labour productivity, and innovative models of ownership.



Figure 14.1: Blueprint for a Steady State Economy (SSE). Source: see note 179.

The Foundation

The foundation of a steady state economy includes the four key features discussed in the first part of this report: (1) sustainable scale, (2) fair distribution, (3) efficient allocation, and (4) high quality of life. *Sustainable scale* means that the size of the economy fits within the capacity of ecosystems to provide resources and absorb wastes — energy and material flows abide by ecological limits, and both population and consumption are stabilised below carrying capacity. *Fair distribution* means that people have equal opportunities to obtain wealth and income, and limits to inequality prevent big gaps between the rich and the poor. *Efficient allocation* means that the

power of markets is harnessed appropriately (taking account of where markets work and where they don't) to allocate resources among competing interests. And an emphasis on *high quality of life* means that GDP growth takes a backseat to the things that really matter to people, like health, happiness, secure employment, leisure time, strong communities, and economic stability. A prosperous economy that is built to last must encompass all four of these features.

We must build an economy based on this foundation, but we cannot start from scratch. We are saddled with the current economic system — an unstable foundation that requires substantial repairs before we can start building. The repair work requires us to re-envision three major economic institutions: (1) investment, (2) productivity, and (3) ownership. We can no longer view investment simply as a way of using money to make money. Investment needs to encompass more than financial returns; it must also generate environmental and social returns. Optimisation, not maximisation, should be the watchword when pursuing labour productivity. We must use productivity gains wisely, and provide opportunities for employment that is fulfilling. And when it comes to ownership, it's long past time to acknowledge that we have many options besides the extremes of state socialism and private capitalism.

The new economic foundation is worthy of widespread public support. But once that support arrives, and it surely will as the downsides of growth continue to mount, we must be prepared to build a coherent set of policies and strategies atop the foundation.

The Pillars

Results from the workshops at the Steady State Economy Conference provide a starting point to develop and implement policies in support of the transition to a better economy. The ideas from each workshop form ten pillars in the architecture of a steady state economy. These pillars are designed to:

1. Limit resource use and waste production;
2. Stabilise population;
3. Provide equitable distribution of income and wealth;
4. Reform the monetary system;
5. Change the way we measure progress;
6. Secure full employment;
7. Rethink the structure of business and the methods of production;
8. Improve global co-operation as nations enter into a phase of economic transition;
9. Change consumer behaviour; and
10. Engage politicians and the media in a wider public discourse on economic goals and strategies.

Although each workshop focused on a single topic, there are many interconnections between the policies that were proposed. Just like the pillars in an architectural structure, the economic policies work in parallel to support the structure of a sound economy.

In the *Workshop on Limiting Resource Use and Waste Production* (Chapter 4), participants recognised that resource reduction policies must be accompanied by behavioural change and fair distribution of wealth. As one participant stated:

Policies to limit natural resource use cannot work in isolation. They need to be part of a wider coherent policy framework that enables livelihoods to be sustained in a non-growing economy. In particular, policies on wealth distribution and behavioural change (in relation to consumption) need to be enacted in parallel to those on limiting resource use.

In the *Workshop on Distribution of Income and Wealth* (Chapter 6), the main proposal was to democratise the institutions where people work. This process of democratisation would require a fundamental change in the way businesses operate, perhaps along the lines suggested in the *Workshop on Business and Production* (Chapter 10). A shift towards more democratic forms of business organisation (such as co-operatives) would likely dampen the growth imperative found in business, and thus reduce resource use as well.

The *Workshop on Employment* (Chapter 9) proposed reducing working hours in order to achieve full employment. A reduction in working hours would likely lead to a decrease in resource use and an increase in well-being (the topic areas of two other workshops). In order for people to reduce their working hours, however, they would need to accept or even embrace the notion of “enough” when it comes to consumption. Thus behavioural change away from consumerism would go hand-in-hand with policies to reshape employment practices.

Some policies, such as adoption of new measures of progress, can probably gain traction on their own. But in many cases, it is difficult to imagine advancement on one policy without concurrent advancement on others. For example, changes in the structure of business seem unlikely to occur without concurrent changes in consumer behaviour. At the same time, if people experience changes at the businesses where they work, their behaviour is likely to change.

In general, the proposals put forward at the conference are mutually reinforcing, which is good news. It suggests that a steady state economy would be a stable economy, with multiple checks and balances that restore it to equilibrium in the face of economic or environmental shocks. This stability is in contrast to the current growth-based system, which exists far from equilibrium. Shocks such as oil price rises and debt defaults can push growth-based economies to the brink of collapse, as the recent global crisis has demonstrated.

One of the first questions to ask when considering policy changes is, “Which should come first?” The answer is that we need to build all of the pillars, perhaps not simultaneously, but incrementally, and in consideration of the full economic structure that is required.

The Roof

As the *Workshop on Measuring Progress and Quality of Life* (Chapter 8) discussed, the ultimate goal for the economy to achieve is *sustainable and equitable human well-being*. It is the part of the economic structure that the foundation and policy pillars are designed to support.

If the economic structure is to last then well-being must clearly be *sustainable*. There is no point attaining well-being for one generation at the expense of future generations. Careless consumption of tomorrow's resources for today's enjoyment is no basis for a lasting prosperity. But well-being must also be *equitable*. Failure to provide equal opportunities for all is certain to derail an economy in the long run. Well-being for certain individuals that is gained at the expense of others undermines overall societal well-being. And finally, well-being — as measured by subjective indicators like happiness and life satisfaction — must become an explicit priority of policy makers. If people are not able to lead happy and satisfying lives, they will not long accept their situation.

A steady state economy offers the best opportunity to maximise sustainable and equitable well-being. Herman Daly has defined a steady state economy as an economy with “constant stocks of people and artefacts, maintained at some desired, sufficient levels by low rates of maintenance ‘throughput,’ that is, by the lowest feasible flows of matter and energy from the first stage of production to the last stage of consumption.”¹⁸⁰ A steady state economy maximises its ends (high quality of life) while economising on the ultimate sources of that well-being (flows of materials and energy). It is a true economy of *enough*.

Although we do not yet have a complete blueprint for constructing a steady state economy, we have a working draft. And we can feel optimistic about the possibility of adding more details in the near future. The Steady State Economy Conference lasted only a single day and had limited space for attendance. If a one-day conference can produce the ideas in this report, what could an even larger number of motivated people accomplish in a week, or even a year?

With a working draft of the blueprint in hand, the next step is to commence development of the economy of enough. How can we take the ideas from the conference and turn them into actions? The concluding chapter attempts to answer this question and offers a strong rationale for getting started today.

15. Boldness in Building the Steady State Economy

“It’s not just that we have to entrench a different form of economy, different ways of doing things, different ways of relating to each other, different consumption patterns. It’s also vital that we do it quickly. We do not have time to waste. There’s no point cheering that you’ve found the brake if, by the time you use it, you’re headed vertically over the edge of a cliff.”

— Andrew Simms, **nef** (the new economics foundation)
Keynote Speaker

Enough Waiting for the Transition

The concept of a steady state economy is not new. For centuries, economists have considered a transition from a growing economy to a stable one. In his most acclaimed work, *The Wealth of Nations*, Adam Smith recognised a limit to economic growth. He predicted that in the long run, population growth would push wages down, natural resources would become increasingly scarce, and division of labour would approach the limits of its effectiveness. He even predicted 200 years as the longest period of growth, followed by population stability.¹⁸¹

John Stuart Mill, a pioneer of economics and gifted philosopher, developed the idea of a steady state economy in the mid-19th century. He believed that after a period of growth, the economy would reach a stationary state, characterised by constant population and constant stocks of capital. His words eloquently describe the positive nature of such an economic system:

It is scarcely necessary to remark that a stationary condition of capital and population implies no stationary state of human improvement. There would be as much scope as ever for all kinds of mental culture, and moral and social progress; as much room for improving the Art of Living and much more likelihood of its being improved, when minds cease to be engrossed by the art of getting on.¹⁸²

These leading thinkers from the 18th and 19th centuries were onto something. Today’s ecological economists, sustainability scientists, well-being researchers, and an increasing number of concerned citizens understand the urgent need to transition away from growth. In 2008, the first international conference on degrowth (*la décroissance*) was held in Paris. In 2009, the UK Sustainable Development Commission released its landmark report *Prosperity Without Growth?*, and **nef** launched *The Great Transition*. In January of this year, the Austrian government sponsored a major event under the banner *Growth in Transition*. A second international conference on degrowth convened in Barcelona in March, followed by a smaller event in Vancouver, Canada. A global movement is building.

There are even signs that these ideas are entering the mainstream. Robert Solow, who won the Nobel Prize in economics for his work on economic growth, recently said:

It is possible that the United States and Europe will find that, as the decades go by, either continued growth will be too destructive to the environment and they are too dependent on scarce natural resources, or that they would rather use increasing productivity in the form of leisure. There is nothing intrinsic in the system that says it cannot exist happily in a stationary state.¹⁸³

The concept of an economy that achieves well-being for all people within ecological limits is highly appealing. It has not been tried, and it is counter to the way we've been doing things, so the scope of change required will be substantial. The results of the workshops indicate that we still have much work to do and many questions to answer. The blueprint is still incomplete in some areas. However, we have enough ideas to break ground on the new economy, and it is becoming increasingly imperative that we do so.

A Plan for Moving Forward

The most important task in follow-up to the conference is to determine how to turn ideas into actions. Building a steady state economy will require a clear and coordinated plan. People intent on creating a better economy must work together to overcome the substantial inertia of business-as-usual economics and the dangerous allure of endless consumption growth.

The workshop results, when taken together, reveal something of a transition plan for advancing a steady state economy. This plan contains four main components:

1. Initiate the behavioural change from “more” to “enough”;
2. Establish more credibility for steady state economics through further research;
3. Publicise the downsides of economic growth and the upsides of a steady state economy; and
4. Support and implement the policies for the transition to a steady state economy.

Behavioural Change

The economy is a human construct. Economic “laws” are not like the law of gravity. They can be changed. Economic institutions and policies that support them are dependent on culture. With culture serving as the source for what happens in the economy, it follows that an economic paradigm shift will not occur without an accompanying cultural shift.

Results from the *Workshop on Changing Consumer Behaviour* (Chapter 12) provide a window into the needed shift. People need to recognise that consumption is only a small fraction of the complete picture when it comes to well-being and life satisfaction. The UK and other nations will need to actively work towards this cultural shift, a process that will require multiple strategies (from tapping influential

people to establishing new institutions to re-positioning entrenched elites who are resistant to change).

The good news is that achieving a large shift in behaviour may not be as difficult as it sounds. All we need to do is look at the vast ways in which culture and behavioural norms have shifted over time. In today's hyper-connected world, changes can happen faster than at any point in history.

Credibility

The steady state economy is an idea whose time has come, but even though it has gained a solid core of supporters, it has failed to grab the imagination of the broader public. The consequences of too much economic growth have been recorded in a host of sources, ranging from books to peer-reviewed articles to blogs to television programmes (although growth isn't always identified as the culprit). Reams and reams of pages are covered with statistics about biodiversity loss, ecosystem declines, income gaps, unemployment, resource shortages, poverty, and so on. It is clear that perpetual economic growth is not possible, but the description of its alternative, a steady state economy, is not yet fully developed.

Although we hope that this report and its findings will increase the credibility of steady state economics, there is still a need for additional research. People want to know how a non-growing economy would work in practice, and what it would mean for them on a day-to-day basis. They want to know how the transition would affect their livelihoods, and how it would secure their children's long-term prospects. Every workshop raised important questions along these lines. The more researchers can provide answers to these questions, the more credible the steady state alternative becomes.

Publicity

Publicity is a critical catalyst for achieving the needed cultural shift, and it can also play an important role in displaying just how credible a steady state economy is. The political movement to transition to a steady state economy needs a home and an inspiring name. The concepts need to be vetted and rigorously discussed in public. Politicians and other influential individuals who understand the negative consequences of pursuing economic growth need to drive publicity for the transition. A variety of media sources — including independent films, mainstream journals and newspapers, television and radio programmes — need to transmit thoughts and debates about economic growth and the steady state economy.

Grassroots action is the key to increasing publicity. A movement has to spring from the grassroots, and it has to have a strong enough voice to attract attention. On a positive note, the relatively modest Steady State Economy Conference attracted a surprising amount of media attention. That attention, coupled with the sense of inspiration that was reported by conference attendees, demonstrates the public demand for ideas about how to build a better economy.

Policy Implementation

As the cultural shift gets underway, as researchers continue to advance the thinking on how to run a non-growing economy, and as publicity for the concept of an economic transition builds, it will be time to start the earnest work of putting the policy pillars in place. The policies and strategies developed in the workshops, although still in need of further debate and development, form a to-do list that is both innovative and daunting.

Policy ideas, such as democratising economic institutions, renovating economic indicators, and making working hours more flexible, are positive responses to systems that aren't working. Implementation, however, will require us to overcome entrenched ways of doing things. There will be plenty of opportunities and challenges in this process. We should begin with the most politically feasible policies (taking advantage of the opportunities), and use these to start a cascade of incremental changes (to overcome the challenges).

A Time for Boldness

We hope that this report generates debate, because debate is needed. But this report is more than a collection of ideas to be debated. It is also a call to move boldly from ideas to action. We must begin the transition to a steady state economy without delay if we are to achieve well-being for all people within ecological limits.

The range and quality of proposals presented and discussed at the conference, together with the mounting number of economic and environmental indicators that point to the unsustainable nature of our current economic system, underscore the need for boldness. The fast-closing window for averting irreversible climate change reinforces it. According to calculations made by the new economics foundation, humanity only has 73 months remaining to take action on climate change (as of November 2010). If we do not take action in this time window, it is unlikely that we will be able to avoid uncontrollable and ultimately catastrophic global warming.¹⁸⁴

Real action to achieve a prosperous and sustainable economy does not include bailouts and futile attempts to squeeze more growth out of an already overgrown economy. It certainly does not involve throwing more and more debt-based “stimulus” money into an unstable system of finance, or cutting valuable public services. Real action requires us to recognise the limits to growth, and embrace the viable and desirable alternative: a steady state economy.

A better economy begins with the realisation that enough is enough. It advances as ideas are debated and discussed. And it will emerge as bold steps turn these ideas into actions. But we must act now, for time is the ultimate limit that we face, and it's the one commodity that we can never have enough of.

*“Whatever you can do, or dream you can do, begin it.
Boldness has genius, power, and magic in it.”*

— Goethe

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Chapter 1 – Introduction

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Economic Justice For All



Economic Justice for All is a discussion forum based in Leeds, UK whose aims and objectives are to:

- broaden and deepen the debate on economic justice for all within the context of environmental sustainability;
- encourage participation in economic debate on a local, national and international level;
- share information and resources to help activists, educators and campaigners;
- enable campaigners, activists, and individuals to engage more confidently in economic debate.



CASSE is an international organisation whose mission is to advance the steady state economy, with stabilised population and consumption, as a policy goal with widespread public support. We pursue this mission by:

- educating citizens, organisations, and policy makers on the conflict between economic growth and (1) environmental protection, (2) ecological and economic sustainability, and (3) national security and international stability;
- promoting the steady state economy as a desirable alternative to economic growth;
- studying the means to establish a steady state economy.

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